INSTRUCTIONAL UNITS IN SAFETY

FOR ELEMENTARY GRADES AND JUNIOR HIGH SCHOOLS

DEPARTMENT OF PUBLIC INSTRUCTION
STATE OF IOWA

Courtesy of Employers Mutual Liability Insurance Company of Wisconsin

Instructional Units in Safety

. . . . FOR ELEMENTARY GRADES AND JUNIOR HIGH SCHOOLS

Prepared, Reviewed, and Approved by

A Committee of Iowa Teachers and School Administrators

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Superintendent of Public Instruction

DEPARTMENT OF PUBLIC INSTRUCTION

Des Moines, Iowa

FOREWORD

IT IS A GENERALLY ACCEPTED FACT that the problem of safety is essentially educational. Due to the increased hazards of modern life, the responsibility for various phases of safety education must necessarily be shared by the home, the school, and the community. The schools of Iowa have long recognized their general responsibility for safety instruction and have continuously endeavored to improve the effectiveness of teaching materials and techniques in this important field.

In sponsoring the preparation and publication of this bulletin, the Department of Public Instruction has sought to provide to elementary and junior high school teachers a number of well-organized teaching units covering ten major areas of safety. The material in each unit was prepared by a committee of Iowa teachers and administrators assisted by specialists in the field of safety education. Special acknowledgment is given to the members of this committee, to their secretary, and to the many teachers and supervisors who contributed to this bulletin. Acknowledgment is also given to the National Safety Council for providing much of the factual data used in this manual and for the invaluable services of their curriculum consultant, Miss Vivian Weedon. The Department of Public Instruction is especially indebted to the National Education Association for the many valuable suggestions provided by its safety materials, and to the Division of Safety Education, the office of the Fire Marshal, and the Department of Public Health of our state for their generous cooperation.

If these instructional units in safety will aid in the development of correct safety attitudes, habits, and skills of elementary and junior high school pupils, this bulletin will be no small contribution to the cause of safety education.

JESSIE M. PARKER
Superintendent of Public Instruction

A MESSAGE TO IOWA TEACHERS:

THIS SET OF INSTRUCTIONAL UNITS for the elementary and junior high school has been prepared with the thought that every Iowa teacher is a teacher of safety. It is the sincere belief of those who have prepared this bulletin that most Iowa teachers want to teach safety but do not have the time to collect, evaluate, and organize the great mass of available materials in the field or to survey the most effective classroom methods with sufficient care to be able to prepare a well-organized program of safety instruction. The units in this bulletin have been designed to present to the elementary and junior high school teachers of Iowa an organization of materials and methods which will facilitate a quick approach to safety instruction based on local interest and needs.

These units are not, in any sense, to be interpreted as constituting a course of study in safety. The wise teacher will make constant use of Iowa's newly revised course of study in safety[1] as an aid in developing each of these units further and in preparing additional units. It is believed that these units will be of most value if the teacher views them as patterns—patterns to be expanded and enriched by teacher and pupil experiences, both in and out of the classroom. The teacher should always remember that the richest unit of study emerges from some child experience. When a community problem presents itself, or when a child is absent from school because of a fall, a burn, a cut or some other avoidable accident, then is the time that the classroom teacher can expand or develop a unit better than anyone else. The committee that has prepared this bulletin hopes these units will be of definite aid to the busy teacher, especially in this larger task.

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[1] *Safety Education, A Course of Study for Grades and High School,* revised 1940, Department of Public Instruction, Des Moines.

TABLE OF CONTENTS

INTRODUCTION

THE ACCIDENT PROBLEM

THE ACCIDENT PROBLEM, although a serious one in Iowa, is not peculiar to Iowa. It is nationwide. Each year, accidents touch the life or pocketbook of one out of every four persons in America.[1] During the year ending January 1, 1940, there were 93,000 accidental deaths in our nation in addition to the 8,800,000 non-fatal injuries, of which approximately 320,000 caused permanent disability. The total cost of accidents can never be accurately measured in terms of dollars, but the annual direct loss to our nation has been arbitrarily set at $3,300,000,000. These costly accidents are the most important cause of death among school children in the United States, taking approximately twice as many lives of youth between the ages of 5 and 19 as such common diseases as pneumonia, heart disease, or tuberculosis. But accidents strike at all age groups in every field of human activity. The home, the highway, the farm, and the factory all record a major share in this tragic loss. Neither is any section of our country spared. The fact that approximately 40,000 of the 93,000 accidental deaths in the year mentioned above occurred in rural areas indicates clearly that both rural and urban communities stand side by side before a common enemy.

Iowa is becoming especially cognizant of its accident problem. For several years the all-accident death rate per 100,000 population in Iowa has exceeded the national average. Last year twenty-four states had a better all-accident record than that of Iowa. A complete summary of the causes of accidental death in Iowa has been classified according to age groups for a four-year period ending January 1, 1940, and is available to teachers on page 119 of *Safety Education, A Course of Study for Grades and High School,* revised 1940, published by the Department of Public Instruction, Des Moines. This same publication presents detailed information to teachers on state fire losses and motor vehicle accidents. All statistics that are available in our state on the subject clearly indicate the vital seriousness of our accident problem.

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[1] Statistical data provided by the National Safety Council, 20 N. Wacker Drive, Chicago.

MEETING THE ACCIDENT PROBLEM IN IOWA

Accident prevention is a complex problem. Many organizations and agencies are contributing to the Iowa program of protecting life and property through improved enforcement, engineering, and education. The various divisions of the Department of Public Safety, the Department of Public Instruction, the Iowa Highway Commission, and the State Safety Council are providing statewide leadership in the solution of different phases of our accident situation. The work of such organizations as the American Legion, the American Red Cross, the Boy Scouts and Girl Scouts, the Parent Teachers Association—along with the work of insurance groups, service clubs, and local school, police, fire and safety officials—is playing an effective part in our state safety program.

Thus, in the cause of safety, Iowa is mobilized on many fronts. But the responsibility of safeguarding life and property is no small task. The magnitude of the problem in our state is so great that there is ample room for the continued and expanded efforts of every agency. Each organization can make its contribution to the cause. The responsibility of our schools, however, in determining the success of Iowa's safety program is becoming more and more apparent. "Because the knowledge and attitude of the individual, who is both potential aggressor and potential victim, are so inevitably a part of the problem, the combined efforts of all other agencies cannot be effective without the fundamental and thorough educational contribution which only the schools can make."[1]

Importance of Teacher Attitude

The effectiveness of the school's contribution to the solution of our accident problem depends almost wholly upon the teacher. This is especially true of safety instruction. Since safety is often taught in relation to other subjects of the curriculum, the amount of time that is allotted to its study as well as the nature and variety of its content and method is usually controlled by the teacher. The successful teacher of safety needs to be ever conscious of common hazards, must know the best safety practices and precautions, and be conversant with the accident problem and the techniques of its cor-

1 *Safety Education, Eighteenth Yearbook*, American Association of School Administrators, National Education Association, Washington, D. C., 1940, p. 43.

rection. "In probably no field is the personal behavior of the teacher so closely related to her teaching as in safety."[1] To be most effective, a teacher must form a personal philosophy of safety which will exemplify the classroom instruction. "Teaching safety through one's own self-behavior involves the knowledge and skill to perform safely those activities which the teacher must perform in his daily living. The teacher with a broken arm may be an illustration of home hazards but is a poor example of safe living. In his home life, his professional life, his pedestrian activities and his driving activities the successful safety teacher will strive to become skillfully safe. He will not only strictly obey rules set up by others; he will be a leader in the establishment of safety rules where needed."[2]

The Study of Local Environment

The wise teacher will understand that safety education is most effective when it begins with the immediate environment of the pupils. The physical condition of the school plant and grounds is a good place to start. It is, of course, true that improvement of the school's physical condition is usually beyond control of the classroom teacher but a pupil-teacher survey and study of existing hazards makes a real educational project and is the first step toward correction. Such projects develop an "alertness" on the part of both teachers and pupils in recognizing hazards which in the town or city school can be called to the attention of the school administration. In the rural school, such projects result in seeing that the playground is cleared of all rubbish and debris, in securing better protection against fire, in obtaining repairs to buildings and equipment, in securing standard highway signs to mark approaches to the school, in obtaining an annual test of the water supply, and in taking many additional precautionary and correctional measures.

All teachers and pupils should be closely concerned with matters of general housekeeping. Their daily activities must not create hazards. Teachers, especially, must be constantly watchful that movable objects do not block exits or cause falls, that doors and escapes are kept unlocked during school sessions, that fire prevention regulations and drills are seriously observed, and that safe

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[1] *Safety Education Methods, Elementary School,* National Safety Council, Chicago, 1940, p. 5.
[2] *Loc. cit.*

conditions of heating, lighting, and ventilation are at all times maintained. The interest that the teacher—and consequently the pupils—shows in obtaining greater safety about the school building is usually quite contagious. The habits and attitudes of safety established at school tend to be lived at home and elsewhere, even among the parents and adults of the community.

The Study of Student Accidents[1]

The selection of materials and methods of instruction should always be governed by the particular problems of the community and the individual needs of the various members of the class. The keeping of student accident records has been found to be valuable not only in discovering hazards and directing attention toward their removal but also in presenting the teacher with motivated approaches to her safety lessons and providing the teacher with vital instructional information. Pupil participation in keeping these records is a practical activity which interests children in the upper grades especially.

Student Safety Organizations

A number of schools have established School Safety Patrols, Bicycle Battalions, Junior Safety Councils, Safety Courts, and other special organizations with a varying degree of success.[2] Before sponsoring a new organization of this kind, it is always wise to consider carefully whether your particular school has a real need for the organization in question, and whether the new organization has sufficient instructional and protective value to merit its existence. Many schools already have too many clubs, and additional organizations only add to the confusion. "For Iowa" clubs, student government groups, and other existing student organizations can usually carry on a great deal of valuable safety activity. It should be remembered that safety should play a significant part in the entire scheme of an active, happy, satisfying life and no teacher should depend too strongly upon special clubs and organizations for safety instruction. The classroom program should always provide the core for safety training.

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[1] See Student Accident Reporting Forms, *Safety Education, A Course of Study for Grades and High School,* revised 1940, Department of Public Instruction, Des Moines, pp. 16-17.
[2] See *The Junior Safety Council, A Handbook for Schools,* National Safety Council, Chicago.

OBJECTIVES OF SAFETY EDUCATION IN IOWA

Ten worthy objectives which have guided the committee in the preparation of these instructional units in safety are outlined in *Safety Education*[1], by the American Association of School Administrators. These objectives might well be considered the safety goals of every elementary and junior high school teacher in Iowa. They are:

(1) To help children recognize situations involving hazard.

(2) To develop habits of conduct which will enable children to meet situations of daily life with as little danger as possible to themselves and others.

(3) To develop habits of carefulness and obedience to safety rules at home, on the streets, in school, or at play.

(4) To teach children to read, understand, and obey safety rules and regulations.

(5) To teach children safe conduct in the use of ~~streetcars,~~ private automobiles, and busses.

(6) To develop habits of orderliness and carefulness in the use of playthings, tools, common articles of the home and school, and in the use of fire.

(7) To develop alertness, agility, and muscular control through rhythmic exercise, play, games, and other physical activities.

(8) To teach children to cooperate to prevent accidents and the taking of unnecessary risks involving physical dangers.

(9) To develop wholesome attitudes concerning (a) law and law enforcement officers; (b) the safety of themselves and others; and (c) organized efforts to assure safety for all.

(10) To give children actual experiences in desirable safety practices.

THE ORGANIZATION AND USE OF THESE SAFETY UNITS

The committee has sought to prepare ten instructional units covering an equal number of major areas in safety. There has been, at all times, an effort to keep this material usable, practical, and educationally sound. The framework of each unit has been kept as simple as possible to meet the teaching needs, and the organization of material has been kept uniform in each unit in order to facilitate its use and avoid confusion. Each unit includes: A. Background

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[1] *Safety Education, Eighteenth Yearbook,* American Association of School Administrators, National Education Association, Washington, D. C., 1940, page 67.

Notations for Teachers; B. Unit Objectives; C. Items of Understanding; D. Suggested Methods and Activities; E. Bibliographies.

A. *Background Notations for Teachers* present pertinent facts related to each unit. It is not intended that these facts be used necessarily as teaching material. The value of this section is largely to provide the teacher with a statistical overview and understanding of the immediate problem at hand.

B. *Unit Objectives* are the specific goals suggested in the light of the preceding facts. Since these objectives are too general to be of help as far as any individual pupil is concerned, the teacher should restate or reinterpret them in terms of the *changes of behavior* which she wishes to effect in each child during the time he is under her guidance.

C. *Items of Understanding* constitute the subject matter of each unit. These safety understandings which are listed roughly according to their level of difficulty are the major concepts which almost every Iowa pupil should have before he leaves the elementary or junior high school. These positive statements of information should only serve as a guide in developing the content of the unit to fit the needs of particular groups of children. Items contributed by teachers and pupils dealing with local needs should be added to this list.

Obviously, the entire list of unit understandings will not be acquired within any one year. In selecting the content to be stressed with the particular group of children, the teacher must eliminate all unnecessary or unsuited items from the final list of understandings. This may be done by the following procedure:

1. Read through the list of understandings carefully and *cross out* (with pencil) those items which the children *already know* as indicated by informal conversation with them or by your observation and pre-testing.
2. *Cross out* (with pencil) from the remaining understandings those items that are *not needed* to be learned by the pupils in your particular locality.
3. *Cross out* (with pencil) from the remaining understandings those items which can be taught more effectively at a later date. (This decision should be made in cooperation with the teachers of advanced grades.)
4. Star the remaining understandings in the margin on the left as these items will be the ones you want to emphasize during the year with that particular class.

By following this procedure and adequately providing for individual differences, a custom-made curriculum in safety to fit each pupil in your class will be possible.

D. *Suggested Methods and Activities* present a series of introductory suggestions, "learning by doing" activities, and mastery projects. The suggestions in this section have been arranged roughly in the order that they most likely will be used in the instructional plan. The committee hopes that through these and similar activities and methods, the items listed as content will become more meaningful to the child by becoming a part of his daily living. These "learning by doing" procedures should provide each child with those experiences which will insure not only that he has acquired the items of information but also that he has developed the proper attitudes and habits with regard to the use of his safety knowledge.

E. *Bibliographies* consist of a list of selected books for teacher reference and for children's free reading. Each book list has been intentionally limited to those materials which the committee felt were most pertinent to the particular unit at hand. For those teachers who desire a more extensive reference list, a very complete annotated bibliography[1] with page citations has been included as a reference in each unit.

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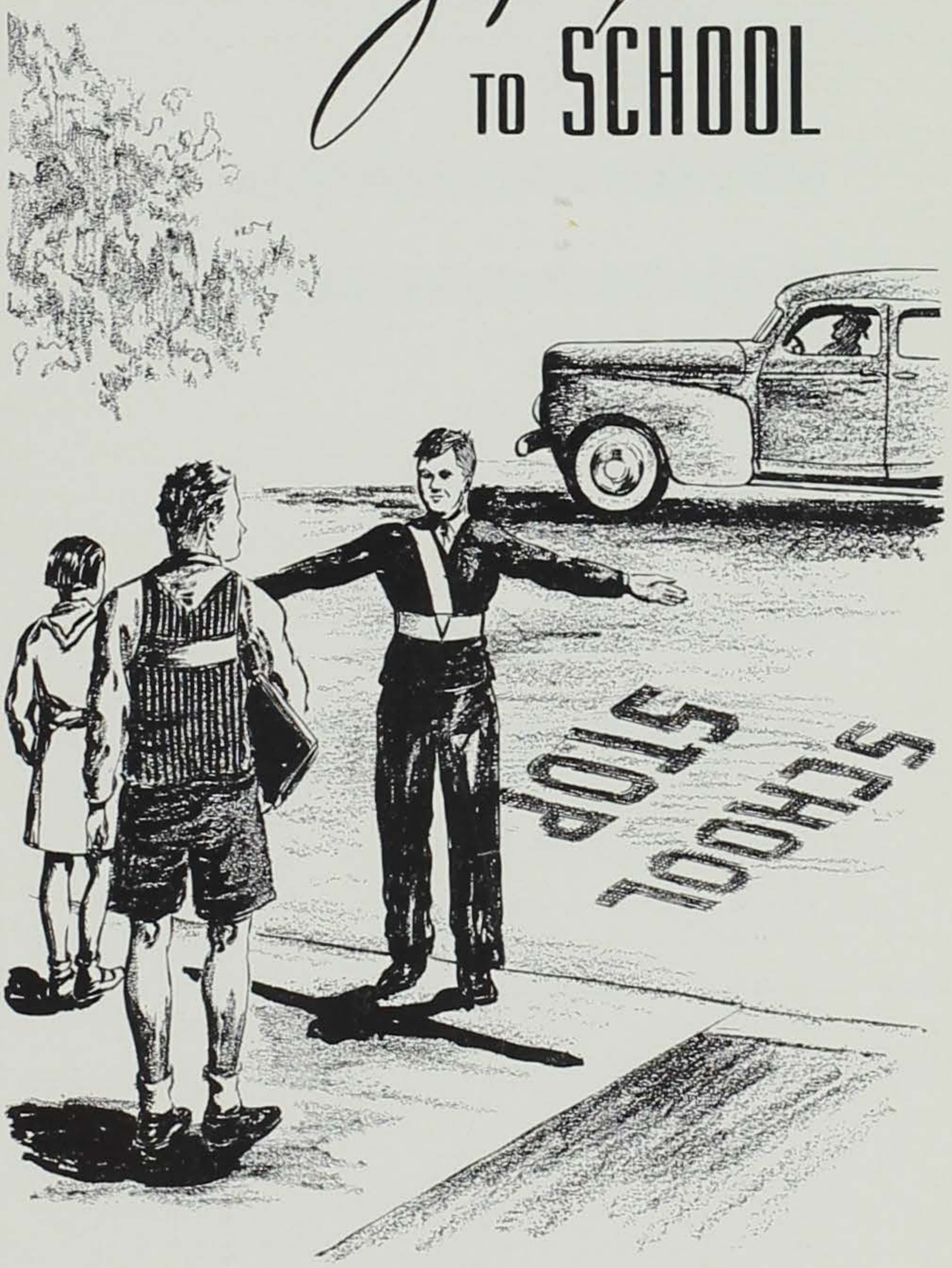
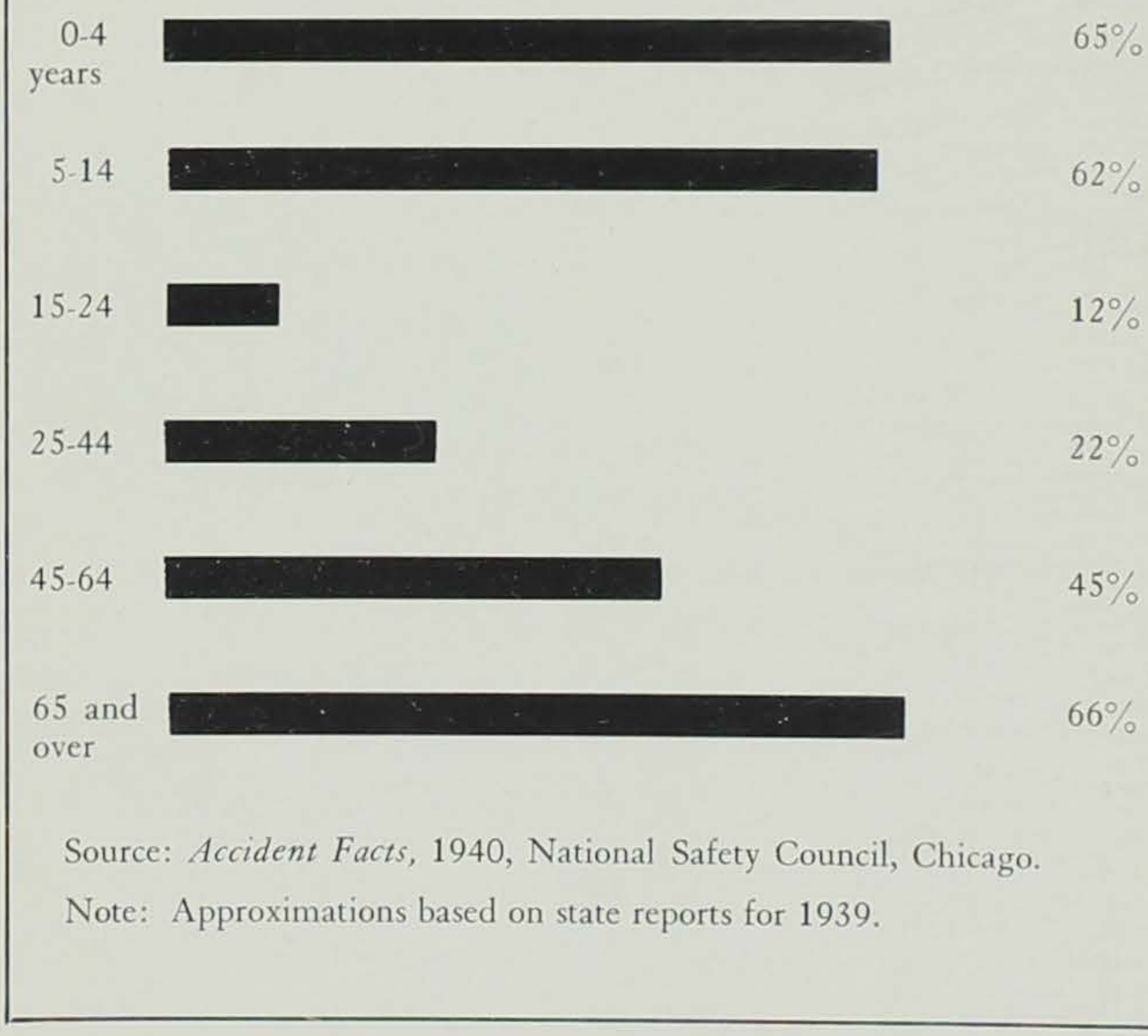
1 *Safety and Safety Education, An Annotated Bibliography,* National Education Association, Washington, D. C.

Unit One

WALKING *Safely* TO SCHOOL



PEDESTRIAN DEATHS IN TRAFFIC ACCIDENTS FOR VARIOUS AGE GROUPS IN UNITED STATES DURING 1939



Source: *Accident Facts,* 1940, National Safety Council, Chicago.

Note: Approximations based on state reports for 1939.

BACKGROUND NOTATIONS FOR TEACHERS

PERHAPS THE MOST IMPORTANT CONCERN of conscientious parents and teachers is that their children get to school and return home safely. This recognition of the danger involved in walking on streets and highways and in crossing at intersections is well-founded. An increase in the number of roadways, in the number of motor vehicles, in the speed of vehicles, and in the number of miles driven has made the safety of all pedestrians a complex problem.

During 1939, motor vehicle accidents in the United States killed 12,300 and injured 260,000 pedestrians. In this year, pedestrians were victims in two out of every five traffic deaths and one out of every four traffic injuries.[1] In order to most effectively teach pedestrian safety to elementary and junior high school pupils, it is important to know *where* these accidents occurred, *whom* they involved, and *how* they were caused.

Approximately 8,100 of the 12,300 pedestrian deaths in 1939 occurred in cities and towns. Of these, almost 2,000 occurred in towns under 10,000 population. The pedestrian death toll on the open road was 4,200.

The bar graph on the adjoining page shows that pedestrian deaths are most frequent among children and aged persons. Of pupils under 14 years of age who lost their lives due to traffic accidents, over 60 per cent were pedestrians at the time of the fatality. According to these facts, teachers of elementary and junior high schools have a sound reason to be concerned about the pedestrian practices of their pupils.

Most pedestrian deaths are the result of carelessness or foolish negligence. More than two-thirds of the pedestrians killed during 1939 were committing a traffic violation or were engaged in some obviously unsafe act. *In cities,* 41 per cent of the pedestrians killed were crossing between intersections or coming from behind parked cars. Forty-five per cent of the pedestrian accidents in cities occurred at intersections but in one-sixth of these accidents the pedestrian was crossing the street against the signal or diagonally. *In rural areas,* more than a third of those fatally injured in pedestrian accidents

[1] *Accident Facts,* 1940, National Safety Council, Chicago.

were walking on the roadway—two out of every three of them with their backs toward approaching traffic. Another third of the rural pedestrian deaths occurred while the individual was crossing between intersections or stepping from behind parked cars.

It is important to remember that practically all of these accidents could have been avoided if the victim had possessed the proper information, attitudes, habits, and skills of pedestrian traffic.

UNIT OBJECTIVES

The foregoing facts and information should impress upon teachers the importance of pedestrian safety education to pupils in the 5 to 14 age group. It is with this need in mind that the following objectives have been listed for this unit:

1. To intelligently obey the rules of safety when on country roads or on city streets.
2. To have the right attitude toward helping others be safe.
3. To know the devices and rules that help keep us safe.
4. To have habits of obedience and carefulness in dealing with traffic situations.
5. To have a feeling of responsibility for one's own safety and the safety of others.
6. To develop confidence in oneself in time of emergency.
7. To develop powers of observation and alertness to the variety of pedestrian-hazard situations.
8. To eliminate the practice of taking foolish chances.
9. To have respect and consideration for car drivers when one is a pedestrian.
10. To know the safest routes to school and to use them intelligently.

ITEMS OF UNDERSTANDING

It is important that the teacher discover the special traffic hazards that her particular pupils must face and emphasize those correct understandings which will be most helpful in meeting their special problems. (For suggestions on selecting the content of this unit to fit local needs, see page 13 of Introduction.)

On the Sidewalk

Walk on the *sidewalk* whenever possible.

Walk always to the *right*. This is one of the most important general rules of safety and it should be observed at all times *except when walking on rural roads or highways.*

Keep your eyes open for others and show consideration for their rights. Do not crowd or push others off the sidewalk or run into them. Be courteous at all times.

Remove ice, broken glass, fruit peelings, playthings, and other objects from the sidewalk which might cause falls. Place any debris in the proper receptacles.

Avoid running from the sidewalk into the street when being chased or when chasing a playmate, a pet, or a ball.

Follow the sidewalk to the intersection before attempting to cross the street.

When you come to an intersection:
STOP when the traffic light is RED.
GO when the traffic light is GREEN.
WAIT when the traffic light is YELLOW.
LOOK both directions before crossing the street, ALWAYS.

When you wish to cross streets that have center parking, look to the LEFT for approaching vehicles; then cross half way, and before crossing farther, look to the RIGHT to see if there is oncoming traffic.

If a safety zone or lane is provided, keep within that area.

If you accidentally get caught in traffic, stand still until you know how to proceed safely.

Use caution when crossing in front of driveways, alleys, and gasoline stations.

Avoid touching fallen wires or low cables that might be charged with electricity.

Carry an umbrella in a way that you can see where you are going. Avoid striking another pedestrian when your umbrella is raised.

Keep away from places that are blocked off for building construction or street and sidewalk repair.

Crossing the Street

Cross only at corners. Never run across the street from behind or between parked cars.

Stop at the curb, look—and if all is clear, walk rapidly across.

Avoid jay-walking or crossing a street diagonally. Such practices are so dangerous that they are often forbidden by city ordinances.

Walk within the safety lines, if they are painted at the crossings.

Look carefully when passing alleys or private driveways.

Help younger children at dangerous crossings. Show them how to cross streets correctly when alone.

Obey the directions of traffic officers and traffic signals.

On the Highway

When there are no sidewalks, walk on the LEFT side of the road facing the approaching traffic. The greatest danger will then be in front of you and you can better see and avoid it.

Keep well out of the way of oncoming cars. Step off the highway when two cars are about to pass close to you.

Keep alert for cars turning into driveways.

Do not hitch-hike as it may be a costly experience. Accept rides only from people whom you know and at proper places. The public highway is not the proper place to secure a ride.

If you are walking on the highway with several people, walk in a single file. This is especially important if a car is approaching.

Never catch rides on cars or trucks as the chance of falling is very great.

Avoid riding on the running board of a car as there is grave danger of falling or being crushed.

Do not throw stones, snowballs, or other missiles at passing cars. Such acts are very unsportsmanlike and may lead to accidents of a serious nature.

Never hook your sled to a car or truck.

Carry a light or wear a reflector if you have to walk on the highway at night. A white cloth or jacket worn by you will aid the driver of a vehicle to more readily see you.

Before crossing the highway, always look in both directions. Look first to the LEFT and then to the RIGHT.

General Pedestrian Responsibilities

Obey all traffic signals.

Cross streets at proper places and at proper times.

Walk on the LEFT side of rural highways.

When in doubt, take time to stop and look in all directions.

Exercise special care at night in crossing streets and highways.

Look for cars turning corners.

Remain on the sidewalk when a fire engine, police car, or ambulance is heard.

Be alert for skidding vehicles when the pavement is covered with rain or ice.

Treat others with courtesy and consideration.

SUGGESTED METHODS AND ACTIVITIES

The following activities, along with those suggested by the pupils, should provide worth-while techniques and methods in developing this pedestrian safety unit.

As a possible approach to this study, children may be encouraged to tell which routes they take to school and what special dangers they encounter.

Allow pupils to prepare a list of safe walking rules which they believe to be important in their particular neighborhood. Discuss these rules and add other rules to the list as the study advances.

Provide drill in learning such fundamentals as:
Determining the left and right hand quickly.
Recognizing red, green, and yellow readily.
Responding quickly to "stop," "go," "slow," etc.
Responding to signals that are commonly used by traffic officers.

Secure pictures of correct pedestrian practices for the bulletin board. Pictures of traffic officers who are helping pedestrians to cross streets safely are especially valuable.

Visit a busy street corner and discuss the obvious hazards. Be certain that safe and courteous sidewalk practices are always observed when taking such field trips.

Draw on the floor with chalk a well-known intersection. Allow pupils to practice crossing this intersection correctly. Use pupil-made STOP and GO signs to regulate traffic. Pupils may take turns in being traffic officers.

Make and discuss posters which illustrate safe conduct in traffic.

Make studies of local traffic situations.
Take a count of vehicles to determine the streets near your home and school that have the least traffic.
Locate the busiest intersection near your home or school.
Locate the areas in your neighborhood where jay-walking is most common.
Locate the points in your community where pedestrian accidents have occurred.

Prepare a large map of your community and record such traffic data as your studies reveal.

After collecting data, allow each pupil to plan his route to and from school that will be the safest. Let the class discuss these routes and make suggestions.

Make sand table, traffic board, and chart projects which will illustrate safe pedestrian practices.

Draw on the blackboard the various traffic signs that pupils see on their way to school. Discuss the shapes and meanings of these signs.

Visit a police station to see how officers deal with traffic problems.

Invite the policeman, patrolman, mayor, sheriff, or senior patrol leader to talk to the class on pedestrian problems.

Prepare an article for the school newspaper which will tell of the dangers of hitch-hiking.

Help to supervise pupil traffic on streets adjacent to the school grounds until proper pedestrian habits have been established.

Make charts showing where to stand when boarding a bus or streetcar and draw diagrams to show how to reach the sidewalk, the side of the highway, or the opposite side of the street when leaving a vehicle.

With the use of wrapping paper and rollers, construct a miniature theater. Show safe pedestrian practices, hazardous situations, and traffic signs and signals on the moving roll.

Make reflectors or white disks to wear on clothing when walking on rural highways at night.

Show and study a street safety movie. (See bibliography.)

Prepare a checklist of pedestrian practices and allow each pupil to check on his own habits.

Collect and discuss accounts of accidents reported in the daily newspapers. Place emphasis on the discussion of those accidents which involve young people.

Study the rights that pedestrians have on the street and highway as provided by local and state laws.

Visit a court in which a pedestrian traffic case is being tried. Discuss the violation involved and conduct a mock trial of a similar traffic violation.

Appoint safety reporters to get facts and human interest material on local street accidents. Allow pupils to write real experience stories about street accidents that they have seen.

Provide an opportunity to discuss such topics as:

When, where, and how to cross the street safely.

Safe and unsafe places to play and the reasons for choosing a place to play that is away from the street and near home.

How the traffic officer helps us. (Establish the idea that he is a friend.)

The harmfulness of jay-walking.

What to do if peelings, broken glass, or other debris are found on the sidewalk.

How to get on or off a streetcar or bus safely. (See Unit VII.)

The dangers of hitching or "hopping" rides.

The value of well-qualified persons to patrol streets that have heavy pupil traffic.

How to walk safely on the rural highway.

Accident trends as shown by national and local traffic statistics.

Dramatize:

A story of a lost child. Be sure each child knows his name and address.

Scenes showing children entering and leaving public conveyances correctly.

Traffic rules and signals. Children may bring their toy automobiles, tricycles, etc., to school. Have children construct a traffic light to use at this time.

The correct manner to carry an umbrella.

Prepare a general summary report which will enumerate the responsibilities of a pedestrian.

Prepare and give an assembly program which effectively demonstrates correct pedestrian techniques and practices. Be certain that this performance shows the importance of proper attitudes, habits, and skills of the pedestrian.

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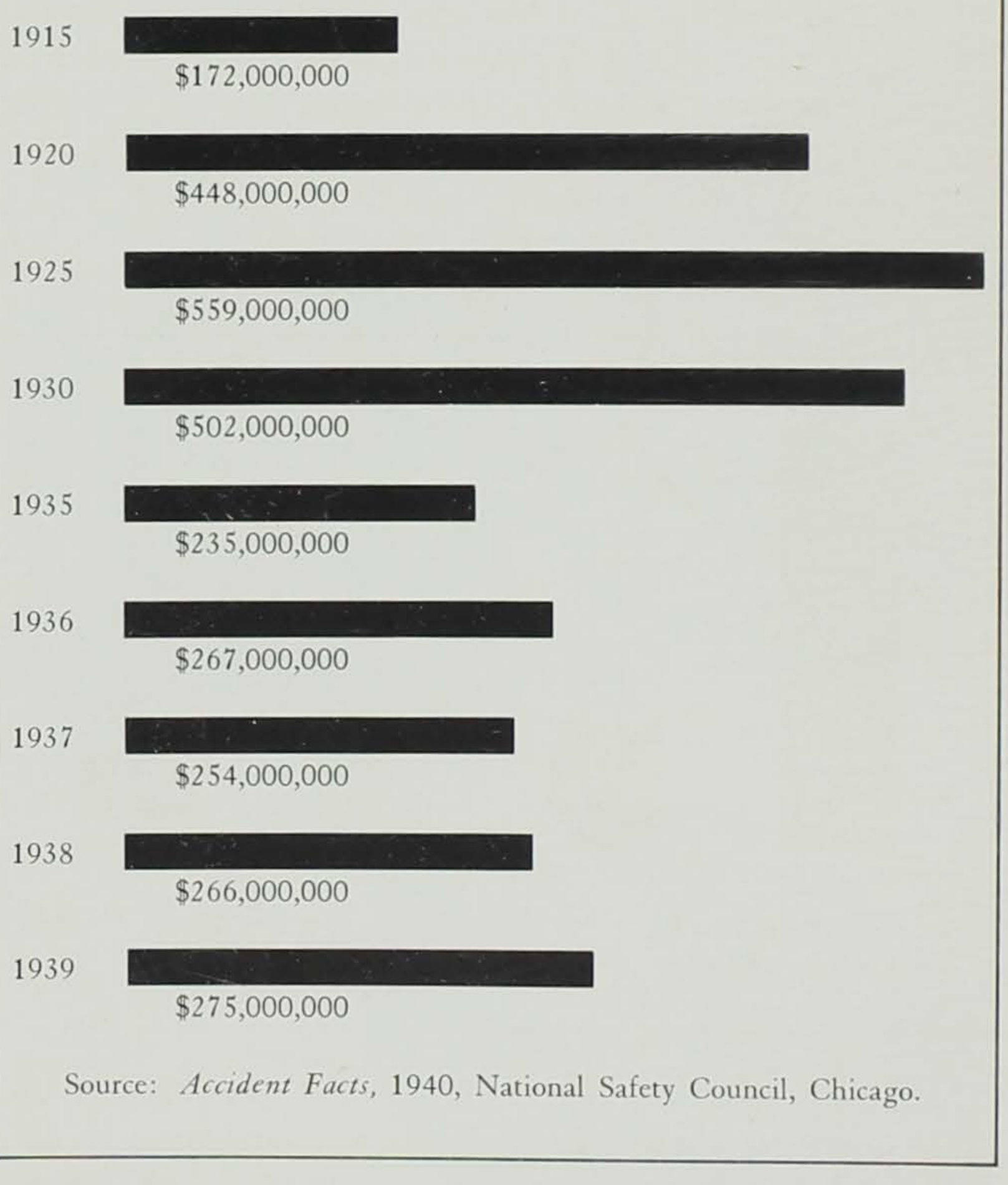
Unit Two

MAKING A *friend of fire*

FIRE LOSSES IN THE UNITED STATES

1915-1939

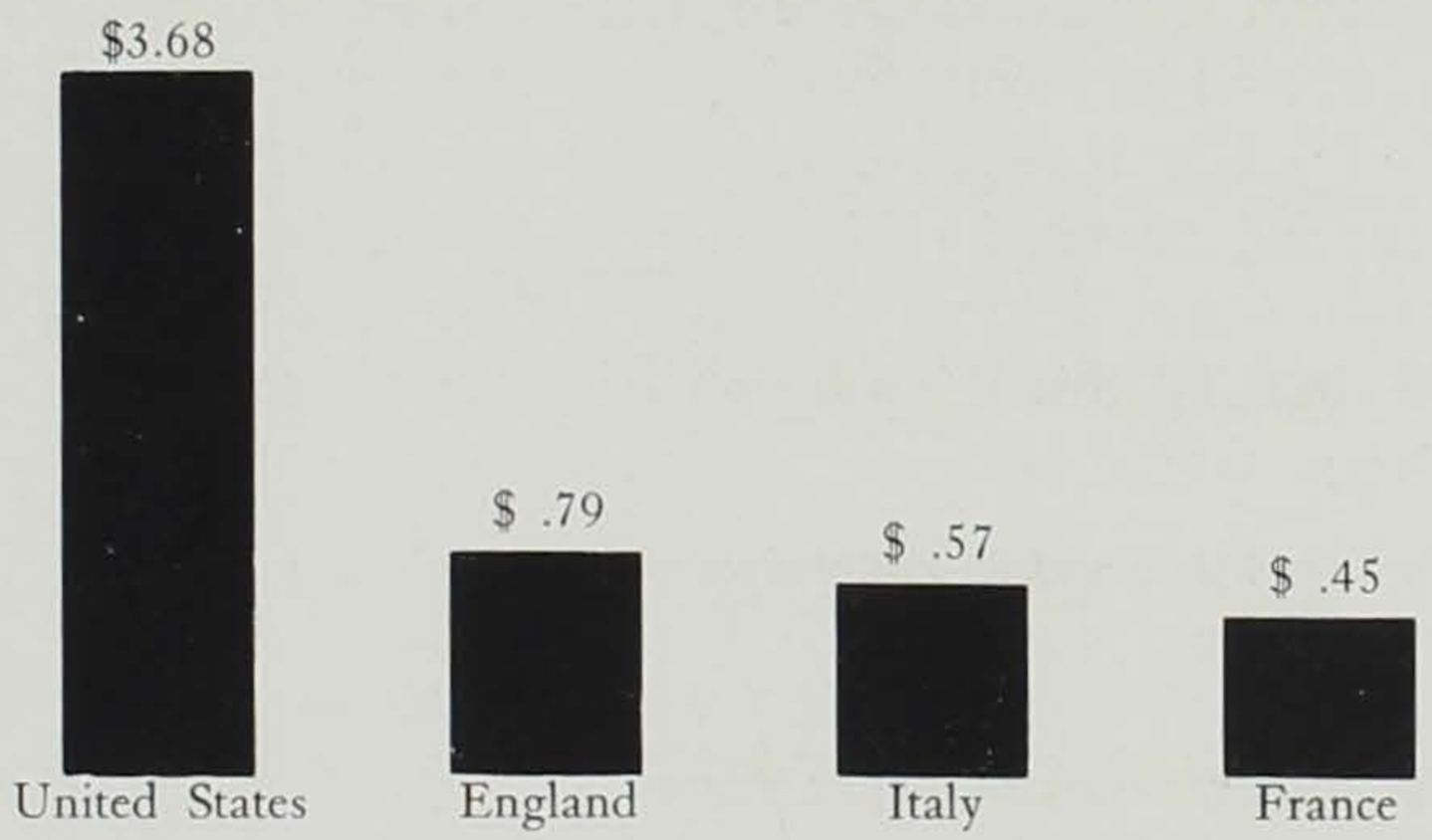


Source: *Accident Facts,* 1940, National Safety Council, Chicago.

BACKGROUND NOTATIONS FOR TEACHERS

THE NATIONAL FIRE LOSS is a staggering burden, both in the loss of lives and in the destruction of property. The 1940 edition of *Accident Facts*[1] reports that in 1939, fire took a toll of 7,200 lives (8 per cent of all accidental deaths) and a property loss of $275,000,000. According to the *Twenty-ninth Annual Report* of the Iowa State Fire Marshal, there were 5,409 fires reported in the state during the year 1939 representing a total fire loss of $4,745,909, an increase of $566,000 over the year 1938. The records of the Iowa State Department of Health show that there were 121 deaths by fire in the state during the first eleven months of 1939. According to the most recent data, the per capita fire loss in the United States is greater than that of England, Italy, and France combined.[2]

PER CAPITA FIRE LOSSES



Source: Division of Fire Protection and Investigation, John W. Strohm, Fire Marshal, State of Iowa, 1939.

Most fires in the United States are caused by carelessness or ignorance. In Iowa, sparks from chimneys, smokers' carelessness, bonfires, defective flues, defective electric wiring, defective oil and gasoline stoves, and spontaneous combustion in rubbish and rags are responsible for the greatest number of known causes of fire. If injury,

[1] *Accident Facts*, 1940, National Safety Council, Chicago.
[2] The Division of Fire Protection and Investigation, State of Iowa.

death, and destruction from fire are to be lessened, education will have to aid in the accomplishment.

To prevent fires we must have a knowledge of fire causes and of fire prevention and extinguishment. We must possess such specific information as how to use, store, and handle materials, and how to properly construct buildings and install service systems without creating fire hazards.

Although all causes of fires cannot be discussed by any teacher or any class during a single year, a selection can be made of fire hazards peculiar to the local community. To this end, the teacher should secure data from the local fire department that may be helpful in making her community a safer place in which to live.

UNIT OBJECTIVES

Knowledge relative to fire prevention is not sufficient to solve our fire problem. Until knowledge is translated into *habitual action,* little good will be accomplished. An attempt should be made to develop a feeling of responsibility on the part of pupils for keeping the home and community safe and to inculcate habits and attitudes of carefulness and alertness with regard to fire hazards. With these purposes in mind, this unit was planned to accomplish the following objectives:

1. To have habits and attitudes of carefulness and caution relative to the use of fire.
2. To know what causes fires and how they may be prevented.
3. To act in the most intelligent manner when meeting fire emergencies.
4. To have a feeling of responsibility in helping to keep the community a safe place in which to live.

ITEMS OF UNDERSTANDING

Many communities have fire hazards peculiar to that locality which this unit would not anticipate. Consequently, teachers may desire to supplement or substitute suggestions given here with other items of understanding within the range of the children's experience. (For suggestions on selecting the content of this unit to fit local needs, see page 13 of Introduction.)

Matches

Keep matches in a metal container and out of the reach of little children.

Strike matches with movement away from body.

Avoid carrying loose matches in the pockets. They are easily lost or they may become ignited.

Be sure every spark of a match is "out" before the match is thrown away. The woodman's rule of breaking a used match in two before he throws it down is a good one.

Use a flashlight instead of a match or candle when you are looking for something in a dark place.

Never leave a match where a mouse or rat can get it. Rodents sometimes carry matches into their holes with disastrous results.

Lamps

Keep lamps away from walls, curtains, or other inflammable material.

Use lamps with broad bases which will not be easily upset.

Refrain from carrying a lighted lamp up or down steps. A fall might cause an explosion and fire.

Avoid leaving a lamp burning when there is no one in the house.

Fill lamp by daylight and away from any flame.

Don't play near a table where a lamp is burning. A pull on the tablecloth might send the lamp to the floor.

Kerosene, Gasoline, and Cleaning Fluids

Use a flashlight instead of a lighted match to look into a container in which there has been any type of inflammables.

Avoid dry cleaning clothes with gasoline, naphtha, benzine, and similar inflammables. It is not necessary for these substances to come into contact with an open flame in order to ignite. Electricity generated by rubbing the fabric (static electricity) frequently is the only spark needed.

Never use gasoline or kerosene to start or quicken a fire. When these liquids vaporize, they will explode upon being ignited.

Keep gasoline containers tightly sealed to avoid evaporation. The fumes are so highly explosive that sparks from a light switch may ignite them.

Never run the motor while filling the auto tank. An explosion may result.

Allow a gasoline or kerosene stove time to cool before refilling it. A hot stove may ignite the vapors.

In lighting a gas or gasoline stove, always strike the match and hold the lighted match over the burner before you turn on the gas. If a pilot light is used, do likewise. If you turn on the gas first, enough vapor will escape to cause an explosion when touched by an open flame.

Paint gasoline cans red so that they can be easily identified. This is required by law in many states, including Iowa.

Smother a gasoline or kerosene fire with blankets, sand, or earth. If water is used it will spread the flames.

Never pour gasoline into the sink. The gasoline that stays in the trap may give off dangerous fumes.

Rubbish and Trash

Help keep children away from brush fires and burning leaves. A gust of wind may ignite their clothing if they get too close.

Avoid starting open fires when the wind is blowing toward buildings or when there is a high wind. It is a wise precaution to set a bucket of water conveniently near an open fire and to watch the fire very closely.

Remove dry grass, leaves, paper, boards, and other waste materials from yards and from under porches and houses. They are readily ignited and constitute a fire hazard to the buildings.

Keep ashes in a metal container that will not catch fire. Hot ashes placed in wooden boxes or wooden barrels, or piled against a wooden building or fence may start a fire.

Dispose of oily rags saturated with paint. They may cause a fire by spontaneous combustion.

Remove accumulations of dust. Dust is explosive if mixed with air in the right proportions.

Stoves, Fireplaces, and Chimneys

Hang wet clothes away from hot stoves or radiators. After the clothes get dry, they constitute a fire hazard.

If there is a fire in the building where you are, close all the doors as you go out so that the draft will not spread the fire.

If you have a fireplace in your home, place a metal screen in front of it to prevent coals and sparks from falling on the floor.

If a gas stove springs a leak, open the doors and windows immediately, turn off the gas at the meter, and call a plumber.

Electrical Wiring and Equipment

Ask permission before using any electrical appliance. Have a grownup check the wiring to see that it is safely covered.

Disconnect electrical appliances after using them. Many fires have been started by electric irons that have been left connected.

If a fuse burns out, don't fix it with a penny. It may overload the wires and start a fire. A blown fuse means that a fire has been prevented.

Use electric lights instead of candles on Christmas trees. Use bulbs approved by the underwriters. This approval may be noted on the bulbs or container in which they are purchased.

All wiring should be done by licensed electricians. This is required by law in many communities. When a defect is discovered, throw the main switch until repairs have been made.

Miscellaneous Precautions

Know how to call the fire department or to turn in an alarm at a fire alarm box.

A small fire can be put out with water, sand, ashes, salt, pounded out with a broom, or smothered with a blanket or heavy rug. Every fire needs oxygen to burn and smothering will deprive the fire of this oxygen.

If your own clothing catches fire, lie down and roll up in a rug or a heavy coat or blanket. Never run for help. Running makes a breeze which fans the flames.

If someone else's clothing catches fire, wrap him tightly in a rug, coat, or blanket, beginning at the head to keep the fire away from his face. Beat out the flames or roll him on the floor to smother them.

If you are caught in a room filled with smoke, cover your nose and mouth with a wet cloth. Crawl toward an exit on your hands and knees because there is more fresh air near the floor.

If you are in a burning building, never open a door before feeling if it is hot. The temperature of the air on the other side may be so high that it would be fatal to breathe it.

If you see a fire, notify an older person immediately or give an alarm.

Avoid the use of fireworks as they cause serious burns. All fireworks are outlawed in Iowa.

Keep a fire extinguisher in the house as an excellent precaution against the spread of fire.

Put out all campfires before breaking camp.

SUGGESTED METHODS AND ACTIVITIES

Any number of situations throughout the year call to mind the hazards of fire. There is the observance of Fire Prevention Week in October which stimulates our attention toward fire safety. There is the period during severe cold weather when stoves are apt to be overheated and materials left too close to the heat. There is also spring house cleaning time when the mania for disposing of trash and rubbish possesses everyone. These and many other occasions will lend themselves for favorable approaches to lessons in fire safety.

It is very important that the pupils appreciate the value of community cooperation in matters of controlling fire. A careless act can devastate a city. The pupils should evaluate the work of firemen and realize the part each individual plays. The following activities, along with those suggested by the pupils, should provide worthwhile techniques and methods in developing this unit.

Take a trip through the school building and observe the precautions that have been provided against fires. Note such items as:
Exit signs
Doors opening out
Fire extinguishers
Fire escapes
Fire alarms
Fire hydrants
Clear stairways and landings
Clean furnace rooms
Clean storage spaces, especially under stairways

Organize fire drills by rooms and teach pupils the proper signals and places to go. Show pupils the exits to be used regularly, and the emergency exits to be used in case regular exits are blocked.

Have pupils dramatize an incident where a boy smells smoke. (He tells his mother immediately. She, in turn, phones the fire department at once. The boy prevents a great deal of damage by telling an adult promptly.)

Demonstrate the effect of oxygen on fire by lighting a candle and fanning it gently. Observe how brightly it burns. Cover the candle with a tumbler and notice that the light goes out. Explain the reason for this to the pupils.

Plan a pupil demonstration of the way to roll up in a blanket or coat if one's clothing catches fire.

Demonstrate how to light and care for a lamp.

List on the board all the causes of fire which the pupils are able to mention. Check the preventable causes, and tell how each might have been prevented.

Show how heated air and smoke rise by having pupils observe smoke from chimneys and by comparing the temperature taken near the floor and near the ceiling of the schoolroom. Emphasize that the best air is always nearest the floor. Therefore, to leave a smoke-filled room, crawl along the floor with the nose and mouth covered with a damp cloth.

Demonstrate the "fireman's drag" and "fireman's carry."

Plan a "clean up at home" and a "clean up around school" campaign for ridding the community of rubbish and fire traps. Organize several grades for this activity. Make posters. Write a feature for the school newspaper about the campaign.

Let pupils make maps of their homes, check where the fire hazards are, and illustrate what remedial measures should be taken.

Have pupils bring newspaper clippings which give accounts of loss of property and lives caused by the careless uses of gasoline, matches, electrical equipment, and other dangerous items.

Encourage pupils to fill out a home inspection blank, listing all hazards in red ink. Have the class summarize the hazards found. They may leave their blanks unsigned so as to avoid embarrassment.

Invite a Scout member to demonstrate the building and the extinguishing of a campfire.

Make an illustrated book showing the services that a fireman renders to his town and the assistance that citizens of the community should give him.

Have pupils make a list of things they may be able to do to aid the fire department in case of fire.

Contribute original cartoons, posters, playlets, songs, slogans, jingles, and themes for a composite scrap book.

Make use of visual aids on fire prevention. Local fire departments and insurance companies frequently have such material on hand and are anxious to cooperate. (Also see bibliography.)

Invite a member of the fire department to speak to the class. Have him demonstrate the correct use of a fire extinguisher.

Present a mock trial with fire hazards as the defendants.

Prepare a list of key words used in connection with fire prevention.

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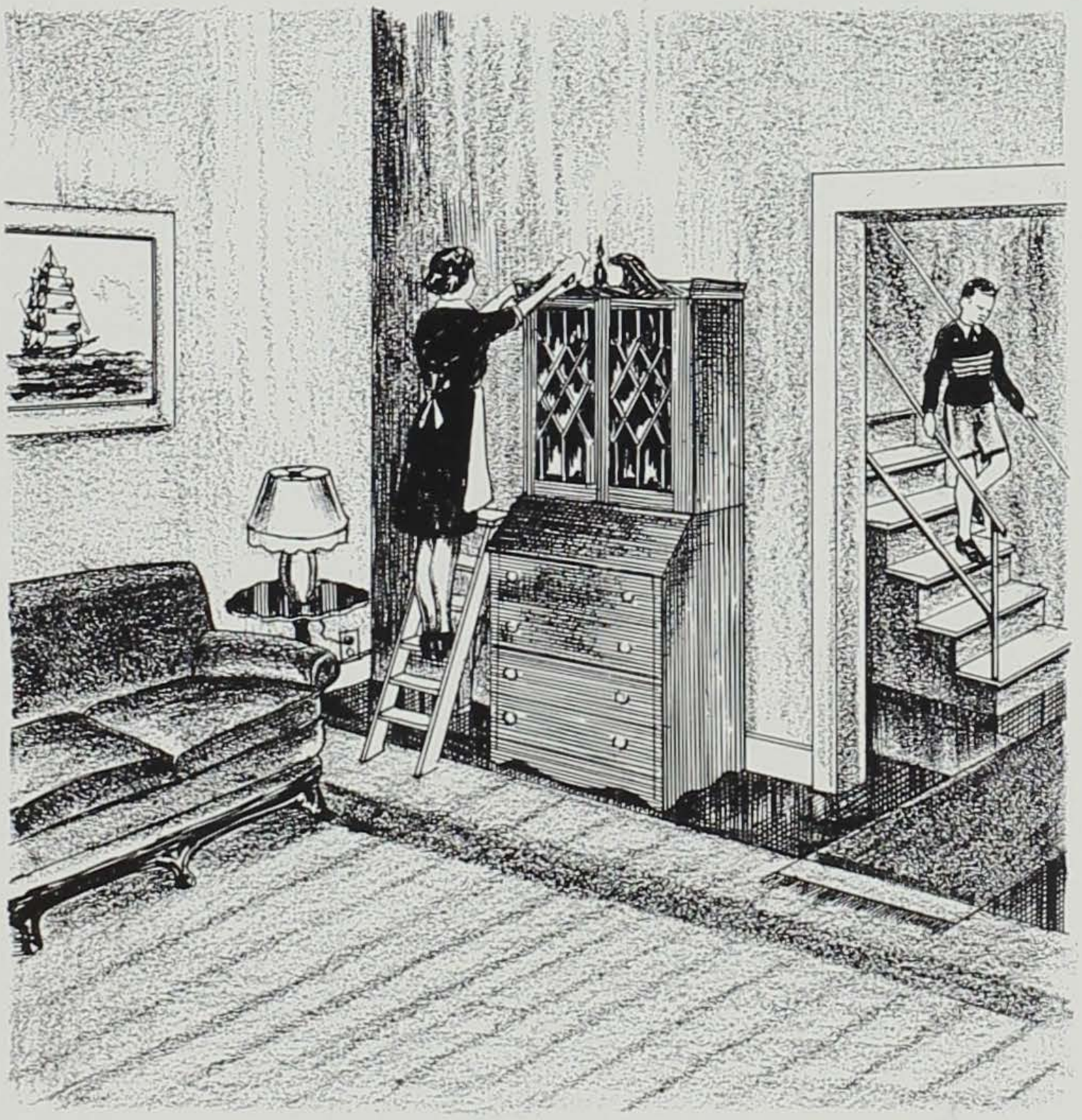
Unit Three

LIVING *Safely* AT HOME



PRINCIPAL TYPES OF FATAL HOME ACCIDENTS IN UNITED STATES DURING 1939

	Number	Per cent*
Falls	16,100	50%
Burns, Conflagrations, and Explosions	5,600	18%
Poisons (Except Gas)	1,400	5%
Firearms	1,350	4%
Mechanical Suffocation	1,050	3%
Poisonous Gas	900	2%
Others	5,600	18%
Total	32,000	100%

Source: *Accident Facts,* 1940, National Safety Council, Chicago.

*Approximate percentage of total.

BACKGROUND NOTATIONS FOR TEACHERS

"SAFE AT HOME" is an expression that may be correct terminology when applied to the game of baseball, but it is not so appropriate when applied to everyday living. Annual figures reveal greater losses in the unspectacular accidents of the home than in any other group classification. Each year more than 30,000 people are accidentally killed and over 4,000,000 injured in and about our American homes. How 1939 home accidents in Iowa and the United States compare in frequency with other types of accidents may be learned from the following table. Especially note the figures for the 5 to 14 age group which represents the children of our elementary and junior high schools.

Type	National Non-Fatal All Ages	National Fatal All Ages	National Fatal 5-14 Years	Iowa Fatal All Ages	Iowa Fatal 5-14 Years
Home	4,700,000	32,000	1,900	781	38
Motor Vehicle	1,150,000	32,600	2,511	542	45
Public (Not Motor Vehicle)	1,850,000	15,500	2,000	240	31
Occupational	1,300,000	15,500	182	232	5
Totals*	8,800,000	93,000	6,593	1,827	122

*Totals are approximately the sums of the other figures, minus the duplication of occupational and motor vehicle, which in 1939 amounted to about 2,600 deaths in the national total.

Sources: *Accident Facts,* 1940, National Safety Council, Chicago; Iowa State Department of Health, *Annual Report,* Des Moines.

From the foregoing figures it can readily be noted that approximately one-half of all non-fatal accidents and one-third of all fatal accidents occur within the so-called security of the American home. The cost of home accident injuries which can be roughly measured —wage loss, medical expense, and the overhead costs of insurance— last year amounted to approximately $600,000,000. In addition, property loss in home fires was in the neighborhood of $100,000,000.

What types of accidents are most frequent in the home? According to the 1940 edition of *Accident Facts,* falls accounted for about 16,100 home deaths during 1939, or half the total of all accident fatalities. Burns, scalds, conflagrations, and explosions resulted in approximately 5,600 deaths or 18 per cent of the total. The record for Iowa during 1939 also revealed that falls and burns led all other types of fatalities in frequency. For children of elementary school age, however, burns proved to be the greatest source of home fatalities, with falls, firearms, and poisons next in order as causes of death.

A careful analysis of such pertinent findings as those presented above on home accidents is an essential step in attacking the problem must effectively through education. Instruction is needed on those phases of everyday living in the home which show the greatest number of injuries or fatalities.

Local data collected by the teacher and pupils should also prove to be of value in developing this unit on "Living Safely at Home."

UNIT OBJECTIVES

While it is important for a child to be safety conscious in all of his environment, it seems particularly desirable that the home be made a place of safe living. Consequently, and in view of the foregoing facts, this unit, "Living Safely at Home," was planned with the following objectives in mind:

1. To know the source of danger in the home.
2. To select proper equipment for work and play in the home that would be safe.
3. To use the equipment at hand properly and safely.
4. To be habitually neat, orderly, and careful in daily home life.
5. To use good judgment that will aid in meeting daily home life situations without accident.

ITEMS OF UNDERSTANDING

Although every teacher may want to emphasize additional home dangers peculiar to the local community, the following items of understanding are general safety-makers in the home. Since most homes are similarly equipped and subject to the same sources of danger, most of these items should be appropriate in all cases.

Whatever is taught, however, should be within the environment and understanding of the child. (For suggestions on selecting the content of this unit to fit local needs, see page 13 of Introduction.)

Burns, Scalds, and Explosions

Avoid playing with matches. A small match handled carelessly may start a big fire.

Keep matches in metal containers out of reach of smaller children.

Strike matches with movement away from the body. If the match breaks, there is less danger of setting your clothes on fire.

Pick up all matches spilled on the floor and return them to their container. Matches may ignite if stepped on.

Turn handles of pans so they do not extend beyond the stove edge or table. Small children might reach the handles and spill the contents on themselves.

Pour out hot water from tubs or pails left standing on the floor. Little children may fall into the hot water and scald themselves.

Handle all containers of hot liquids carefully and without undue haste. Be especially careful with hot grease.

Learn to distinguish between hot and cold water faucets.

Stay away from steam escaping from a tea kettle or other container. Steam is very hot.

Avoid playing near bonfires, unscreened fireplaces, or hot radiators. You might stumble and receive a severe burn.

Avoid boisterous play near a table on which a lamp is burning. If the table is bumped, the lamp might fall over and cause a fire.

Never use gasoline to light fires. Gasoline is so volatile that an explosion may occur.

Never throw kerosene on a smouldering flame. Heat causes the kerosene to vaporize, forming an explosive mixture.

Avoid dry cleaning clothes at home. If it must be done, do all dry cleaning out of doors and use non-inflammable cleaning fluids.

Allow kerosene or gasoline stoves and lamps to cool before being refilled. A few minutes' wait may prevent an explosion.

When lighting a gas oven, open the oven door and strike the match before turning on the fuel. It will prevent the accumulation of explosive gas in the oven.

Never use a match in searching for leaking gas. Use a flashlight or call the gas company.

(See Unit II.)

Falls

Put playthings away so others will not trip and fall over them.

Avoid standing or jumping on rocking chairs, beds, or unstable objects. It not only is hard on the furniture, but it also may cause you to fall and hurt yourself.

Keep your overshoes buckled and your shoestrings tied. It may keep you from stumbling.

Carry scissors or sharp knives with the points *down*. If you should fall, you would be less likely to injure yourself.

Choose a safe place to play your games. Playing on roofs of houses, near excavations, on high porches, or near steep, unprotected bluffs and similar dangerous places may cause a tragedy.

Carry bulky articles so that they do not obscure your vision.

Avoid sitting on window sills or leaning out of windows. You may lose your balance and fall.

Never lean against glass or screens. They break easily.

Walk carefully on waxed floors. They often are slippery.

Fix rugs so they will not slip or cause one to trip and fall. It is especially dangerous to leave loose rugs at the top of stairs, landings, or at the foot of stairs.

Sit down while taking a bath. Wet bathtubs are slippery.

Put the soap back in its container after you use it. Others may fall if it is left where they could slip on it.

Keep the four legs of your chair on the floor when you are seated. It is unsafe to tilt the chair back.

Turn on the light before entering a dark room or stairway. You may bump into objects or you may think you have reached the end of the flight of stairs before you really have.

Use the hand rail in walking up and down the stairs. The stairs may be worn or slippery, and the rail will help support you.

Watch where you are going at all times when you walk up or down stairs.

Throw food refuse, such as banana peels and similar slippery articles, in the garbage container and not on the ground or sidewalk.

Wipe up any water or grease that has been spilled on the floor. Water or grease on kitchen or bathroom linoleums makes the floor very slick.

Never leave hoes or rakes lying about with the prongs up. Hang them in their proper places when they are not in use.

Avoid climbing on fire escapes or high places unless compelled; then be careful.

Use a small, safe stepladder to reach cupboards or high shelves. Rocking chairs or rickety boxes used as stepladders are frequent causes of accidents.

Asphyxiation and Suffocation

If possible, have windows open at night for plenty of fresh air.

Leave the bedroom door unlocked at night. You might want to get out in a hurry.

Keep away from gas stoves. Only grownups should turn them on or off. Escaping illuminating gas or cooking gas has caused many deaths.

If you smell gas, open the doors and windows, go out of the room immediately, and tell an older person.

Avoid leaving heavy blankets in a position where they might fall on a sleeping baby's head. Bed clothing piled on a small child may cause suffocation.

Never lock other children in small closets, big trunks, or any other place with a limited air supply. Air is necessary to sustain life.

Do not place coins, marbles, pieces of rubber balloons, or similar articles in the mouth. They could be accidentally swallowed in such way as to cut off the air supply.

Discourage anyone from allowing the engine of a motor car to run in a closed room. The exhaust gives off carbon monoxide gas which is odorless, colorless, and tasteless, but very deadly.

Poisons

Keep away from the medicine cabinet. Poisons are often kept there. If you need something in the cabinet, ask an adult to get it for you.

Never taste unknown liquids. They may be poisonous.

Do not use the contents of any bottle in the dark. You may have the wrong bottle.

Never eat strange berries or unripe fruit. They may make you sick.

Help to keep washing powder, lye, and other poisonous powders away from little children. Curiosity may cause them to taste the substance.

Do not drink water from a pool or from an unknown, unsafe source. Many diseases are transmitted in unclean drinking water.

Never pour poisonous substances into a bottle bearing the label of some harmless substance. It might later prove fatal through a case of mistaken identity.

(See Unit X.)

Firearms

Never point a gun at anyone. It is the supposedly "unloaded" gun that kills.

Avoid playing with guns. An accident may result.

Remove shells from a gun not in use.

Keep all guns, even though unloaded, out of reach of small children.

See whether or not a gun is loaded immediately on picking it up. Do not trust to memory or information given by a companion.

If you are old enough to have a gun, learn the proper technique for carrying, cleaning, and firing every type of weapon you use.

(See Unit X.)

Electric Shock

Play away from electrical fixtures and appliances in use. Keep fingers and metal objects out of light sockets and floor plugs. You may cause a short circuit and electrocute yourself.

Never handle electrical fixtures when any part of the body is in the water. Water is a good conductor of electricity and will short-circuit the current.

Always disconnect electrical apparatus when it is not in use.

Cuts and Scratches

Handle knives, forks, tin cans, ice picks, can openers, bottle openers, and similar articles carefully. Most kitchen utensils are sharp.

When handing scissors to someone, extend the handles toward the other person with the points down.

Pick up nails, tacks, pins, and needles and place in proper containers. Others might step on them.

Small children should not play with the sewing machine. The needle is sharp.

Avoid playing with the lawnmower. A blade that is sharp enough to cut grass can cut off a finger.

Remove tin cans and broken glassware from the yard. It may prevent a bad cut.

Learn the correct method of using a knife. Always cut away from the body.

Use the handle when opening a glass door. If you push on the glass, you may break it and cut yourself.

Avoid placing a butcher knife in a drawer with other knives and forks. It may cause a cut finger.

Pick up boards that may be lying about in which there are rusty nails. Someone may step on a nail.

SUGGESTED METHODS AND ACTIVITIES

Each teacher will need to select her own method of introducing the unit. The method chosen must of necessity vary with the situation and with the age of the child. The guiding principle that should be kept in mind, however, is that the teaching should modify behavior. Safety does not come through the acquiring of *knowledge* so much as through the development of *habit*. People get hurt not because they do not know danger, but rather because they do not think of it until too late. Therefore, caution must be *habitual* to be effective.

The approach to any unit in safety should be *positive* rather than negative. The development of wholesome habits and attitudes is a more effective means of preventing accidents than the use of fear or the recital of gruesome details.

A teacher should take advantage of the situations that arise in the lives of the children under her direction. Experiences that are meaningful *now* are more valuable than abstract, make-believe situations.

The following activities, along with those suggested by the pupils, should provide worth-while techniques and methods in developing this unit:

A visit to a home or the homemaking and shop classes in the school is a worth-while approach. Have the children notice whether there is a place for everything, with everything in its place. Discuss the conditions noted upon returning to the classroom.

Informal dramatizations by pupils are effective in teaching home safety. When they are written by the children, they provide expressions of ideas. Memorizing lines written by others is of little value. Care should be taken to stress prevention of accidents in these situations.

Demonstrations of how to build a fire in a kitchen stove, how to light a lamp, how to carry a chair correctly, how to label medicines, and like correct practices are valuable.

Clean-up campaigns are very worth while because the parents of many children are careless in keeping trash and litter from accumulating.

When tools are used by the pupils for any class project, it is important that they be given systematic training in the use of such tools. (No school has a right to place tools and building materials in a classroom unless the teacher is trained to show the children how to correctly use and care for such items. A bad habit formed is a hard one to break.)

Have pupils write articles on home safety for newspaper publication. Make a collection of safety items clipped from periodicals or newspapers.

Draw safety posters for bulletin boards showing the right way to do things or illustrating safe home conditions. Post charts, diagrams, and clippings on bulletin boards to supplement the posters.

Children may recount their own experiences or the experiences of their friends, or they may review a safety story that they have read. Care should be taken to omit all gruesome details and incidents of horror.

Oral or written reports based upon personal experiences, surveys of home conditions, or research materials are valuable. The reports should be based upon specific and accurate information.

The use of films and slides is a valuable teaching device. Care should be taken in the selection of the visual material, however, so that the desired specific needs are met. (See bibliography.)

Assembly programs featuring home safety talks, debates, demonstrations, dramatizations, or open forum discussions are valuable. All such activities have the greatest value if the pupils participate.

Make graphs and charts relating to statistics on the subject of home safety. These may be correlated with other subjects.

Make an exhibit of the common household preparations that contain poison. Have the children prepare and give talks about the safe handling of each.

Make an exhibit of non-conductors of electricity such as wood, glass, and rubber. Do the same for insulators of heat, etc.

Construct a miniature home and yard, showing appropriate means of guarding a home against hazards.

Make "safety gifts" for mothers, such as pin cushions, needle books, holders for scissors, and hot pads.

Many safety games can be played, such as giving pantomimes of safety rules and having the audience guess which rule is illustrated, or have the teacher show flash cards upon which a variety of phrases are printed. She may ask, "Is it safe——"

To play with matches?

To stand on a rocking chair?

To put away toys?

The childen would answer, "No, it is not safe (to play with matches)," and so on.

Discuss the reason for the variation in types of home accidents among persons of different ages.

Make a list of key words in connection with home safety. Discuss their significance and meaning.

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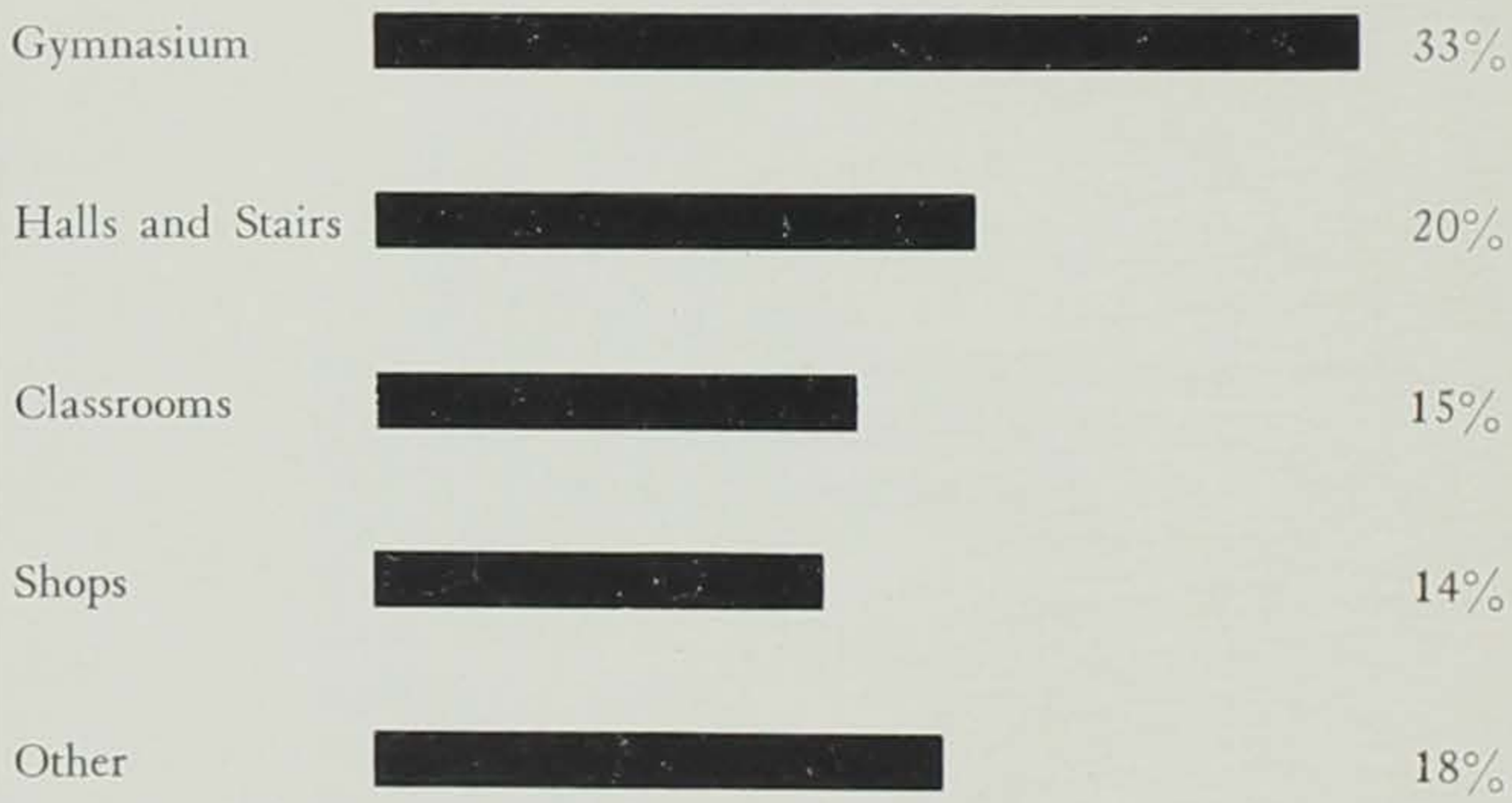
Unit Four

WORKING *Safely* AT SCHOOL

WHERE SCHOOL BUILDING ACCIDENTS OCCURRED

1939-40



Sources: *Accident Facts,* 1940, National Safety Council, Chicago.
Reports from school systems with more than 800,000 enrollment.

BACKGROUND NOTATIONS FOR TEACHERS

In the year 1939, the accidental death total for children 5 to 14 years old, the approximate age span of elementary and junior high school pupils, was 6,250. This is a 5 per cent decrease from the 1938 total of 6,593, and the lowest total since 1913. In 1918 and 1919, the peak total of 10,000 deaths was recorded. The 1939 total represents a reduction of 37 per cent. The 1939 accidental death rate of the school age group was only half that of any other group. Since 1922, the year in which a definite national program of safety education was originated, the death rate has dropped 37 per cent.

Of all fatal accidents to school children 5 to 14 years of age during the year 1939, over one-half (58 per cent) were of the non-school type. All other accidents to this age group (42 per cent of total) are classified as school accidents. The accompanying graph shows the distribution of these school accidents according to their place of occurrence as reported by school systems with an enrollment of 824,000 pupils.

SCHOOL ACCIDENTS[1]
(5-14 age group)

Since this unit deals specifically with the problem of "Working Safely at School," it is well to note that almost one-half (43 per cent) of all school accidents to children in this age group occurred in the school *building*. While the above graph represents a national picture of school accidents, it may not be typical of any particular school situation. In order to discover where school accidents occur to your pupils for the purpose of knowing what instructional and corrective measures should be taken and to determine the comparative effectiveness of your accident reduction program, it is very desirable to use a standard accident reporting system.[2]

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1 *Accident Facts*, 1940, National Safety Council, Chicago, p. 60.
2 *Safety Education, A Course of Study for Grades and High School*, revised 1940, Department of Public Instruction, Des Moines, pp. 16-17.

As many school activities are similar to life activities, a reduction in school accidents through a program of education should later be reflected in a reduction of accidents elsewhere.

UNIT OBJECTIVES

In view of the foregoing information relative to pupil accidents at school and the important responsibility that teachers have for safeguarding pupils during a large part of their formative years, this unit presents a real challenge to the teacher. The objectives for this unit are:

1. To have attitudes, habits, and skills of safety in all school activities.
2. To be able to meet emergencies in school situations.
3. To avoid actions in school that are likely to cause accidents.
4. To know that a healthy body and mind are important factors in working safely.
5. To know how to perform school activities safely.

ITEMS OF UNDERSTANDING

It is important that the teacher emphasize those items of understanding which are especially needed in their school situation. (For suggestions on selecting the content of this unit to fit local needs, see page 13 of Introduction.)

Hang wraps in the cloakroom space provided for that purpose.

Always carry scissors, knives, forks, and other pointed objects with the points down.

Walk when carrying a sharp object.

Hand scissors to others with the points down.

Keep objects out of mouth, nose, and ears.

Learn where equipment is kept, and put it back in place.

Ask someone older to help you lift heavy things.

Carry chairs in front of yourself, with both hands on the back, and the legs down.

Have four legs of the chair touching the floor when you are seated.

Avoid pulling chairs out from under others.

Use care in opening the doors into hallways.

Keep to the right.

Avoid pushing.

Hold on to the banisters when using stairways.

Keep your hands to your sides when possible.

Wait your turn at the drinking fountain.

Do not push anyone who is drinking from the fountain.

Keep the floor around the fountain free from water, to prevent slipping.

Help keep the toilet room clean.

Be careful not to push anyone against a hot stove or radiator.

Put trash and refuse in waste basket where someone older may properly dispose of it.

Keep all furniture in its proper place.

Keep the aisles clear. Sit with your feet on the floor under the desk.

At recess, play games in which there is no disorder or tripping.

Avoid throwing paper wads, chalk, or rubber bands. Such actions may result in serious injuries.

Report to the proper person all injuries occurring at school.

When you cough or sneeze, use your handkerchief to cover your mouth.

Know location of exits and fire escapes.

Know and obey the rules and signals for fire drill.

Know the location of fire extinguishers, and how to use them.

Know how to send in a fire alarm.

Observe such safety rules in the auditorium as passing quietly, remaining quiet in the assembly, and not leaning on railings of stairways or balconies.

Wear proper shoes in the gymnasium.

When possible, use mats for all exercises that may cause a fall.

Use apparatus only under the direction of the instructor.

Attempt to do stunts only after proper instruction.

Follow the directions for laboratory safety as given by the instructor. Work in the laboratory should be done under the supervision of the instructor.

Follow the advice of the instructor on how to safely use hammers, saws, and other shop tools and machines.

When around machines, keep sleeves rolled, remove ties and coats, and avoid loose clothing.

Keep all shop equipment in good working order. Report any injuries to the proper person.

Know how to operate and care for the stove used in the home economics laboratory.

Use caution in handling hot liquids.

Operate the sewing machine with care. Always follow the instructions of the person in charge.

SUGGESTED METHODS AND ACTIVITIES

Since children learn best through their own activities, the most effective approach to the school safety program is through the daily activities and experiences of pupils at school. The following activities, along with those suggested by the pupils, should provide worthwhile techniques and methods in developing this unit:

Describe and illustrate the proper use of objects that have sharp points.

Make a safety booklet showing pictures of objects that have sharp points. Paste in the safety booklet pictures of objects which should be kept away from the eyes, ears, nose, and mouth, as suggested on page 41 of the Iowa course of study in safety.[1]

Make a rack for holding scissors when not in use, as suggested on pages 40-41 of the Iowa course of study in safety.[2]

Play games illustrating correct practices, as the "Who and Where" game. The object of this game is to teach little children in kindergarten and first grade to know their names and addresses well enough to reply correctly when asked. With very young children it may be sufficient to expect the child to know his given name, or given name and surname, and in addition, to tell that he lives near a certain store or church, etc. To play the game, call on the children and give those who answer correctly some form of recognition.

Take an excursion through your school building to see how sanitary and safe it is kept.

Provide for pupil demonstration of the correct way to use the drinking fountain.

Make a list of games that are safe to play in the schoolroom.

Organize a first aid committee. Pupils should learn first aid treatment for accidents which are likely to occur at school.

Have a rubbish pick-up on your school grounds. Show how this aids in promoting safety.

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1 *Safety Education, A Course of Study for Grades and High School,* revised 1940, Department of Public Instruction, Des Moines.
2 Loc. cit.

Write to the Department of Public Instruction, Statehouse, Des Moines, Iowa; the National Safety Council, Chicago, Illinois; or the National Education Association, Washington, D. C., for school safety checklists.

Make a checklist to be used in your own school building.

Make a study of the organizations which are interested in school safety. A suggested list is:

Safety Councils	Junior Red Cross
Safety Patrols	Boy Scouts
Safety Clubs	Girl Scouts

Prepare a "Safety Reader" that may be used by lower grades.

Make a booklet of news clippings about school accidents.

Demonstrate the use of the fire extinguisher. Be certain to have a properly qualified person give the first demonstration.

Prepare and give a short talk to your class on "School Safety."

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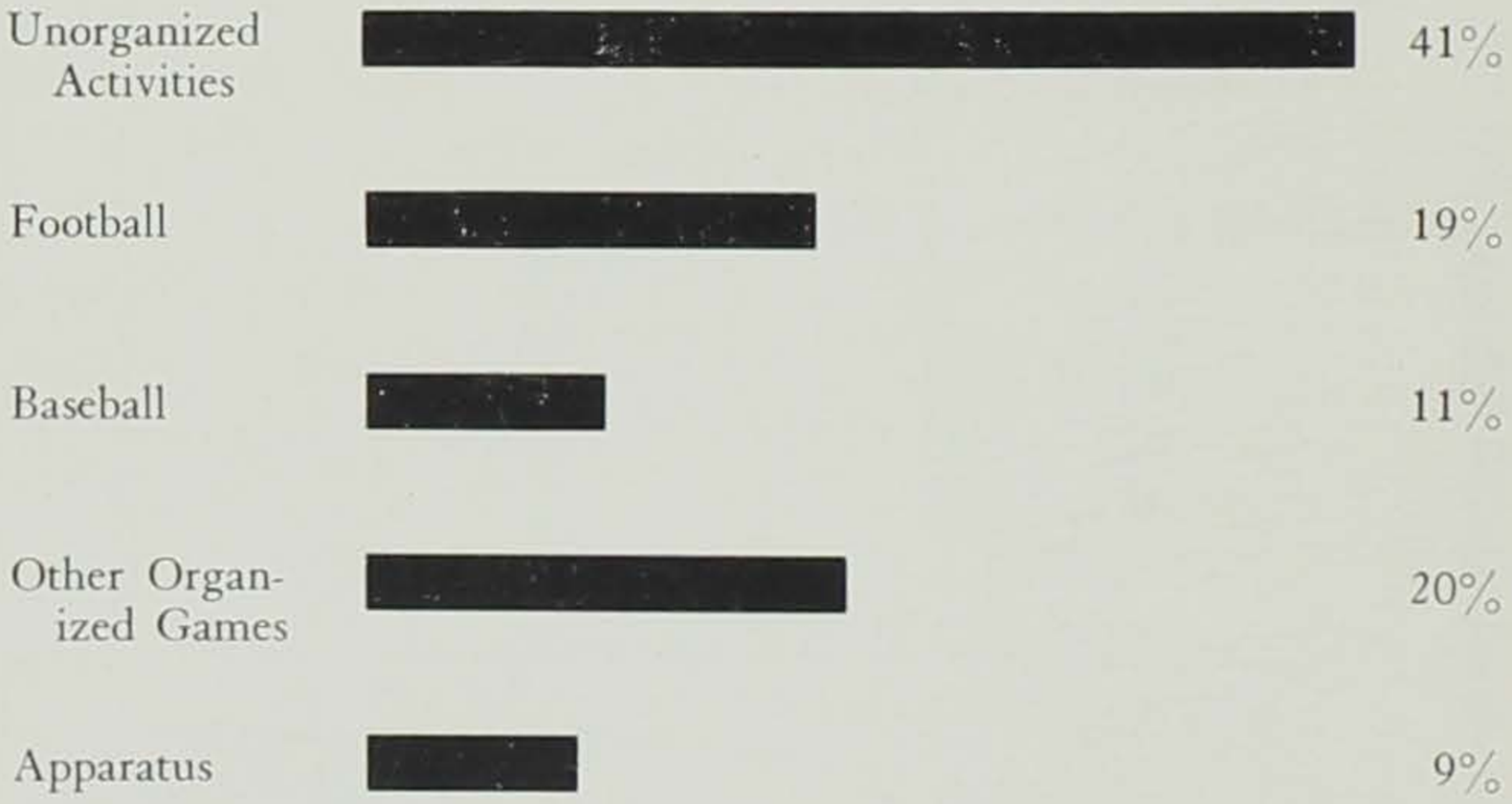
Unit Five

PLAYING *Safely* AT SCHOOL

PLAYTIME ACCIDENTS TO SCHOOL CHILDREN IN UNITED STATES DURING 1939



Source: *Accident Facts,* 1940, National Safety Council, Chicago.

BACKGROUND NOTATIONS FOR TEACHERS

THE 1940 EDITION OF THE annual statistical report of the National Safety Council shows 18 per cent of accidents to children occur in the school building, 17 per cent on the school grounds, 7 per cent going to and from school, 25 per cent within the home, and 33 per cent other places.

Pupil accidents on school grounds occurred approximately as follows:

2/5 in unorganized play
1/5 playing football
1/10 playing baseball
1/5 other organized games

Perhaps the most common causes of these accidents are the lack of proper supervision and the failure to follow playground rules. Crowded conditions and faulty equipment on the playground may be other common causes of accidents.

Reports of pupil accidents reveal that accidents on the playground rise gradually to a peak in the sixth and seventh grades, and that participation in baseball and football lead to more accidents than any other games.

The estimated accidental death total for ages 5 to 14 during the year 1939 revealed a decrease of 5 per cent from the 1938 total.[1] In our state, according to the Iowa State Department of Health, very few *fatal* accidents on school grounds have been reported. This indicates that playground accidents are probably being reduced both in number and severity, but such facts should only encourage us to further reduce the great number of playground accidents that are still occurring.

Each teacher should have an understanding of the common hazards that cause playground accidents. Complete records should be kept of all playground accidents as this is the best way to get information which may be studied and used in an accident prevention program. The Standard School Accident Report Forms,[2] from the National Safety Council, have been found most useful in analyzing types and causes of playground accidents as well as where and when they happen.

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1 *Accident Facts*, 1940, National Safety Council, Chicago.
2 *Safety Education, A Course of Study for Grades and High School*, revised 1940, Department of Public Instruction, Des Moines, pp. 16-17.

UNIT OBJECTIVES

In the foregoing facts, it is noted that playground accidents have gradually decreased during the past few years but that they still constitute a very serious problem. Since most accidents on school grounds happen outside the regular class periods and therefore at times when pupils are more or less responsible for their own behavior, it is urgent that pupils become more alert to the causes of playground injuries and that they suggest and consistently practice means of minimizing and preventing them. In the light of the above statement, this unit was planned with the following objectives:

1. To be more observing and alert to play hazards on the playground.
2. To have right attitudes toward all playground safety rules and standards.
3. To acquire a feeling of responsibility for one's own safety and the safety of playmates when playing on the playground.
4. To choose safe places to play.
5. To understand the proper use and care of playground equipment.
6. To appreciate that safe play is essential to the enjoyment and happiness of every pupil on the playground.
7. To have habits of obedience and carefulness in all playground activities.
8. To use good judgment and self-control in all play activities.

ITEMS OF UNDERSTANDING

Since playtime should be a happy and safe time, every effort must be made to encourage the pupils to recognize play and playground hazards and to acquire those habits which will prevent accidents. The right kind of supervision tends to make for safer play, but we must strive to have pupils responsible for their own behavior through some form of self-supervision. In the following items of understanding the teacher will want to emphasize those safety items which will help pupils correct the special problems of their playground. (For suggestions on selecting the content of this unit to fit local needs, see page 13 of Introduction.)

Take your turn in play.

Follow the rules of the game.

Show good sportsmanship. Always consider the rights of others.

Look ahead when running. Go slowly in crowded areas and over rough ground.

Wear clothing that is suitable for the type of game, the weather, and the place of play.

Practice fair play and good citizenship at all times on the playground. Always be considerate of the safety of others.

Help those smaller than you to play safely.

Refrain from running or playing when there are articles in your mouth, and avoid any chance of falls when you are carrying articles that are sharp or breakable.

Always use caution when throwing objects in the direction of playmates.

Play games far enough away from the curb so that there will be no danger of anyone being pushed into the street.

When you are through playing, remove all playthings from the sand pile and play places and put them away.

Avoid pushing, crowding, or tripping, as none of these acts are mannerly or sportsmanlike.

Remove your glasses, if possible, while playing. Put them in a safe place.

Keep the playground clean. Pick up all rubbish, nails, tin cans, glass, and waste paper, and place in the proper receptacle.

Report all injuries of playmates immediately to older persons.

Fill all holes in the playground. Play on level ground.

Play games that you can play safely on the school grounds. Choose a place to play games where you will not interfere with the games that other children are playing.

Refrain from throwing sand, sticks, stones, cinders, or any other objects which might cause injuries to playmates.

If the ball with which you are playing rolls out into the street, be sure to look both ways before you go after it.

Play quiet games during the hottest part of the day. Overexertion may cause illness.

Avoid playing games that are too strenuous for your age and strength.

Keep shoestrings tied so they won't trip you while playing.

Keep dogs away from playground. Avoid petting or molesting strange dogs as they are sometimes unfriendly.

Dismount your bicycle before coming on the school ground, and park it in the proper parking space.

Keep at a safe distance when watching a game, or when a piece of apparatus is in use.

Choose a level place on playground for "running games."

Keep playground walks clean. Avoid leaving playthings, brooms, and other articles on walks which might cause a fall.

Refrain from throwing snowballs at others. Snow pressed in the hands is ice. It is dangerous to throw anything as hard as ice or stones at others.

Find safe places to go barefoot.

Know poisonous plants, weeds, trees, bushes, or vines, and refrain from touching them.

Avoid playing in unsafe places such as:

- High trees
- Roofs of buildings
- Buildings under construction
- Cliffs, pits, caves
- Railroad property
- Telephone poles
- Streets
- Fire escapes
- Billboards, especially those electrically lighted

Refrain from walking or running backwards.

Refrain from bringing the following articles on the playground unless they are brought under proper supervision. They are dangerous playthings.

- Air rifles
- Bows and arrows
- Sling shots
- Pea shooters

Learn how to use different pieces of playground equipment safely.

1. *Swings*

Swing straight ahead—not sideways.

Refrain from swinging too high.

Wait until the swing has stopped before leaving it.

Play far enough away from swings so you will not be struck.

If a ball rolls under the swing, wait until the swing stops before trying to get it.

Refrain from running under the swing when pushing another child.

Hold the ropes tightly at all times.

Refrain from playing on the framework of the swings.

2. *Sliding Board*

Slide down feet first, sitting, not standing.

Climb ladder without pushing or crowding.

Wait until slide is clear before starting down.

Keep hands away from the sides of slide when going down.

Take turns.

3. *Teeter-Totter*

Face each other when teetering.

Give warning to person on other end before getting off.

Stay safe distance away from teeter if you are not using it.

Refrain from bouncing or bumping while teetering.

Hold on tightly to the teeter board.

Keep your seat—do not stand.

Hold both feet out from under the board as it approaches the ground. It is dangerous to lock your feet under the board.

Be sure your partner is completely on the board before you start.

4. *Giant Strides*

Hold on tightly at all times.

Stay a safe distance back from the person in front of you.

Give warning to other children when you let go of chains.

Leave chains as they are—don't shorten, cross, or wind them around the pole.

5. *Traveling Bar and Rings*

Traveling should be in one direction.

Refrain from taking hold of anyone who is using apparatus.

Have a tight grip before starting to swing and be sure your hands are dry.

Stand far enough away so that you will not be kicked.

One child at a time should use apparatus.

Refrain from doing fancy tricks unless you are especially skillful.

Follow safety rules in games and other play activities to prevent accidents.

1. *Baseball*

Know baseball rules and follow them.

Know how to catch a ball in a way that you may avoid injury.

Use a hard ball on regulation hard ball field only.

Know how to use a bat.

Drop bat after hitting a ball. It is dangerous to throw or sling the bat after a hit.

Grip bat correctly to avoid hitting yourself with the projecting inner end of the bat.

Stand back away from the plate when waiting your turn at bat.

Choose a proper place to play baseball where there will be no danger of injury to persons or damage to property.

Refrain from playing other games in play area while a baseball game is being played.

Keep shoe laces tied to avoid tripping while running bases.

If you are a spectator, watch the game at a safe distance. Stay out of the diamond while the game is in progress.

2. *Soccer*

Select the proper area for playing.

Mark well-defined boundary lines to avoid running outside the boundary area.

Use a properly inflated ball and see that it is securely laced.

3. *Marbles*

Play in an area where you will not interfere with other games.

When you have an open cut or wound see that it is properly treated and dressed before playing marbles.

In order to avoid injuries resulting from quarrels, refuse to "play for keeps."

Keep marbles out of your mouth.

4. *Kite Flying*

Fly kites in open spaces where there is no danger of contact with electric wire or trees.

Use a cotton string for kites.

Use wooden frames for kites.

Avoid using tinsel cord, fine wire, or metal of any sort in kite frame or string, as these metals conduct electricity.

Keep string dry while flying, especially if there are electric wires nearby.

Watch not only the kite, but also where you are walking while flying it.

If your kite gets caught in or near electric wires or in trees, it is better to leave it there rather than to risk getting a shock or fall.

5. *Coasting*

Select a place free from dangerous obstacles such as trees, fences, and rocks. Use those restricted areas for coasting which are provided by your school or community.

Steer straight ahead to avoid directing the sled toward others.

Wear suitable clothing.

Know the correct way to sit on a sled.

Avoid coasting immediately behind another sled.

Stay out of the path of coasters when walking back up hill. Use one pathway for coasting and another for returning up the hill.

6. *Ice Skating*

Cover ice skates with guards when they are not in use. They are extremely sharp and dangerous.

Avoid skating on "rubber" or "young ice."

Consider rights of others.

Watch your direction.

Skate near the edge if you are just learning.

Avoid congesting any skating area.

Avoid amateur stunt skating.

Avoid pushing someone else who is skating.

Attach skates to shoes correctly.

Avoid carrying sharp articles while skating.

See that holes or dangerous places in the ice are marked with some sort of danger signal.

7. *Roller Skating*

See Unit VIII, "Safety On Wheels."

SUGGESTED METHODS AND ACTIVITIES

Since pupils learn best through their own activities, it would seem advisable to use a personal or specific experience as an approach to a unit on playtime safety. A conversation about an accident in a swing at home, a newspaper picture of an accident that happened in the community, or a pupil telling about a new game he has learned to

play may be used to arouse interest in safe play or as an approach to this unit. Discussion of these experiences will no doubt lead to suggestions by the pupils of things to do, such as making rules for certain games or observing demonstrations on how to use specific pieces of apparatus. The following activities, along with those suggested by the pupils, should provide worth-while techniques and methods in developing this unit:

As a possible means of introducing this unit, discuss informally some playground accident that the pupils know.

Encourage children to talk about such subjects as:
Why we need playgrounds.
What the duties of a good citizen are on the playground.
Why I like to play with certain playmates.
The need for fair play on the playgrounds.
What constitutes safe places to play.

Have pupils tell what games they like to play at home, at school, and at community playground.

Tell a story about a playground safety picture.

Make a list of safe games to play on the playground.

At the time it will be most effective, arrange a special section of the bulletin board to show pictures, diagrams, posters, stories, or charts of playground safety problems.

Take pupils out on the playground and show them the *safe way* to use all play apparatus. Older pupils may be used in demonstrating safe practices and in giving special helps to younger pupils.

Write items about playground safety for the school newspaper.

Make a survey of the playground and its equipment, listing those hazards which should be eliminated.

Tell how such hazards as a broken piece of apparatus, holes in the playground, or things left lying about might cause serious accidents.

Make a map of the playground showing where certain games may be played in order to have adequate space for all games. This plan could also be worked out on the floor or in the sand table. Discuss the reason for having restricted areas on the playground.

Have the pupils plan a conference with the Safety Education Committee of the Parent-Teachers Association.

Give pupils an opportunity to make and fly kites as a means of demonstrating the items of understandings listed on page 62.

Invite qualified people to talk to pupils about playground safety problems. Such persons as a playground supervisor, a physical education supervisor, a health supervisor, or a first-aid director might be used.

Plan an exhibit which will emphasize playground safety. This exhibit might include:
Maps of the playground.
Charts showing different types of playground accidents.
Articles found on the playground which are dangerous.
Scrapbooks on *"Playground Safety."*
Playground safety stories written by children.
Playground safety posters, drawings, and pictures for the bulletin board.
A list of safety standards for use on the playground.
A display of play equipment, such as bats, balls, nets, etc.

Select a committee to help mark a safety zone around playground apparatus, such as swings, teeters, and slides; also around areas where such games as baseball and quoits are played.

Arrange a time for children to bring their playthings to school. Allow practice in the use of these toys so as to establish habits of safe play.

Present a dramatic play which illustrates a particular playground safety problem, as:
How to help others have right attitudes toward play.
How to be a good playmate.
How to keep safe while playing.

Examine and discuss pictures of poisonous plants in order that you will be able to recognize them.

Write a play about playground safety and present it to the school pupils and their parents.

Plan a safety assembly. This could be a climax to a particular playground safety problem on which you have been working.

Plan a library corner where copies of magazines, pamphlets, and books may be placed which contain references to safety.

Suggest that children write to other schools to get information about their plan for playground safety, and discuss the value of this information in improving the local playground.

Write bulletins on how to play new games, emphasizing certain safety precautions. These may be posted, published in the school paper, or sent around to different rooms.

Make a safety scrapbook. This book may include:
Newspaper clippings of playground accidents.
Rules of conduct for a safe playground.
Poems, songs, rhymes, or stories about playground safety.
Rules for playing different games.

Help to keep a record of all playground accidents.
Prepare a playground report blank that could be used in keeping this record.

Classify each accident and study how it might have been prevented.
Report on what your school is doing to prevent playground accidents.

Make a frieze showing different playground activities.

Select monitors to help spectators find safe places while watching games which might cause injury.

Visit a community playground and have the supervisor talk to children about the use of equipment and how to play safely.

Read a story about playground safety and then dramatize it.

Set up standards for safe and courteous conduct on playgrounds.

Discuss the dangers of not reporting and treating sprains, cuts, bruises, and scratches resulting from accidents on the playground. Talk over methods of preventing such accidents.

Appoint playground committees to help carry on such safety activities as seem feasible in your particular situation.

Formulate conclusions after studying safety rules as:
We can have more fun on the playground if we obey safety rules.
Pupils get hurt when they jump from a teeter without letting partner know.

Arrange for a motion picture or use lantern slides to show safety on the playgrounds. (See bibliography.)

Have pupils take a sample of drinking water on the playground and send it to Iowa City for analysis. (An official container may be secured from the State University at Iowa City.)

Plan to go coasting. Make use of standards for safe coasting that have been prepared by pupils.

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Unit Six

HAPPY HOLIDAYS

A COMPARISON OF THE NUMBER OF ACCIDENTS WHICH OCCURRED DURING 1939 HOLIDAY MONTHS TO CHILDREN OF SCHOOL AGE*

Holiday Month	Approximate Per cent of Total
December (Christmas)	15%
January (New Year's)	17%
April (April Fool's Day and Easter)	20%
July (Independence Day)	35%
October (Hallowe'en)	13%
	100%

Source: *Accident Facts,* 1940, National Safety Council, Chicago.

*Estimated for all accidents of 5 to 14 age group during holiday months. It must be remembered in interpreting the above graph that accidents not related to the specific holiday affect the monthly picture.

BACKGROUND NOTATIONS FOR TEACHERS

MANY DISASTERS, with severe injuries and loss of life and property, occur each year as the result of special holiday celebrations. It has cost the United States more lives to celebrate her independence than it cost our ancestors to win independence.[1] According to the *Summary of Fourth of July Injuries Due to Fireworks and Explosives,* compiled by the American Medical Association in 1939, there were thirteen deaths reported as directly due to the celebration of the Fourth of July with fireworks and other explosives. This report recorded six injuries in Iowa caused by fireworks and explosives. Because of the many serious accidents and disastrous fires resulting from such celebrations, our state legislature passed a law prohibiting the sale of all fireworks in Iowa. It is the responsibility of the teacher to lead pupils to see the wisdom of this legislative act, and to suggest other means of celebrating the day.

Many fires and disasters in the home and school have resulted from the use of Christmas decorations, candles, and faulty electric lights. The use of paper, cotton, and cellophane as decorations are all known to be common causes of such fires. The tree, when dry, is also very inflammable.

Pranks at Hallowe'en are often costly. Much private and public property is damaged through thoughtless and careless pranks. Safety training should develop respect for rights of others and a regard for public and private property.

April Fool pranks may result in falls and other serious accidents if the celebrants carry their stunts too far.

UNIT OBJECTIVES

Holidays and all special occasions should be happy days for everyone. Due, however, to the stimulating effect of the holiday season and the increased hazards of the time, many pupils fail to use the additional precaution necessary to prevent disaster and sadness. In recognition of the many holiday tragedies involving pupils of our state, this unit was planned to achieve the following objectives:

1. To know the dangers that may exist in celebrations.
2. To find a substitute for unsafe practices.

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[1] *Accident Facts,* 1940, National Safety Council, Chicago.

3. To learn that safe holidays are happy holidays.
4. To know that the holiday fun of a good citizen should not be harmful to others.

ITEMS OF UNDERSTANDING

Teachers will want to emphasize those items of understanding which seem most needed in their community during various holiday seasons. (For suggestions on selecting the content of this unit to fit local needs, see page 13 of Introduction.)

Hallowe'en

Use candles in pumpkin jack-o'-lanterns only.

Use a flashlight in paper jack-o'-lanterns.

Keep off the street on Hallowe'en night as you would on any other night.

Refrain from pranks that damage property.

Refrain from frightening little children and elderly, sick, or nervous people.

Use masks that permit you to see clearly through the holes.

Avoid soaping car windows as it impairs visibility and may cause serious accidents.

Wear costumes which do not interfere with your walking.

Keep all paper costumes and decorations away from electric light bulbs or open flames as they burn easily.

Avoid placing things on steps or in doorways as they may cause falls that result in serious injury.

Christmas

Keep Christmas toys off the floor.

Mount the Christmas tree on a firm base.

Keep the Christmas tree away from a fireplace or other open flame.

Use tree lights of good quality that bear the label of the Underwriters' Laboratories. Never use candles on the tree or at a curtained window.

Use decorations on the tree which will not burn.

Dispose of all paper wrappings and boxes in proper receptacles.

Remove the Christmas tree and decorations immediately after New Year's Day.

Dispose of the tree in the same manner as is done with rubbish. The tree should not be burned in the fireplace, furnace, or stove, as the dry tree burns with a flash.

Select safe toys for Christmas. Secure the advice of qualified persons as to the safety features of all toys.

Select toys that fit the age and ability of the child. For small children, choose toys without sharp points. The paint on small children's toys should be washable and non-poisonous.

April Fools' Day

April Fool jokes can be fun. Play jokes that will not be harmful.

Avoid pulling a chair out from under anyone, as it may cause a serious injury.

Fourth of July

Avoid the use of fireworks of all kinds. Using sparklers may cause fires and burns.

Refrain from using cap pistols. They may cause injuries which result in lockjaw.

Choose some of the many safe and patriotic ways of celebrating the Fourth of July without fireworks. Picnics, hikes, excursions, parades, and concerts are usually acceptable substitutes.

SUGGESTED METHODS AND ACTIVITIES

School activities which attend the celebrations of the various holidays naturally lend themselves as excellent opportunities for teaching the safety attitudes, habits, and skills that need to be developed for each occasion. The following activities, along with those suggested by the pupils, should provide worth-while techniques and methods in developing this unit:

Look up the history of Hallowe'en. Make a list of the superstitions that you can find about Hallowe'en.

Make a list of ways to have fun at Hallowe'en without the destruction of property.

Prepare a list of pranks which are sometimes played on Hallowe'en. Check those which are destructive to property or which might result in harm to someone.

Make costumes and masks for a Hallowe'en party or parade as a safe means of celebration.

Make a list of toys which are safe for small children. Cut out and mount pictures of gifts which are safe for small children.

Make safe decorations for your Christmas tree.

Name a few safe games to be played at Christmas time. Choose some games that may be played indoors and some that may be played outdoors.

Appoint a safety committee to see that your tree and decorations conform to the safety rules that you have made.

Write to the Playground and Recreation Department of the city of Los Angeles, California, for the bulletin on making candles from clothes pins for Christmas trees.

Make Christmas cards with a safety message.

Make a list of jokes and safe pranks for April Fools' Day. Prepare a short talk on the history of April Fools' Day.

Make a list of ways in which you might celebrate the Fourth of July without fireworks.

Analyze the many accidents to persons and property that occur on or near July 4.

Find out what the Iowa law specifies regarding the sale of fireworks. Discuss the reasons for such a law.

Give a report on the disastrous fires in Iowa which have been caused by fireworks.

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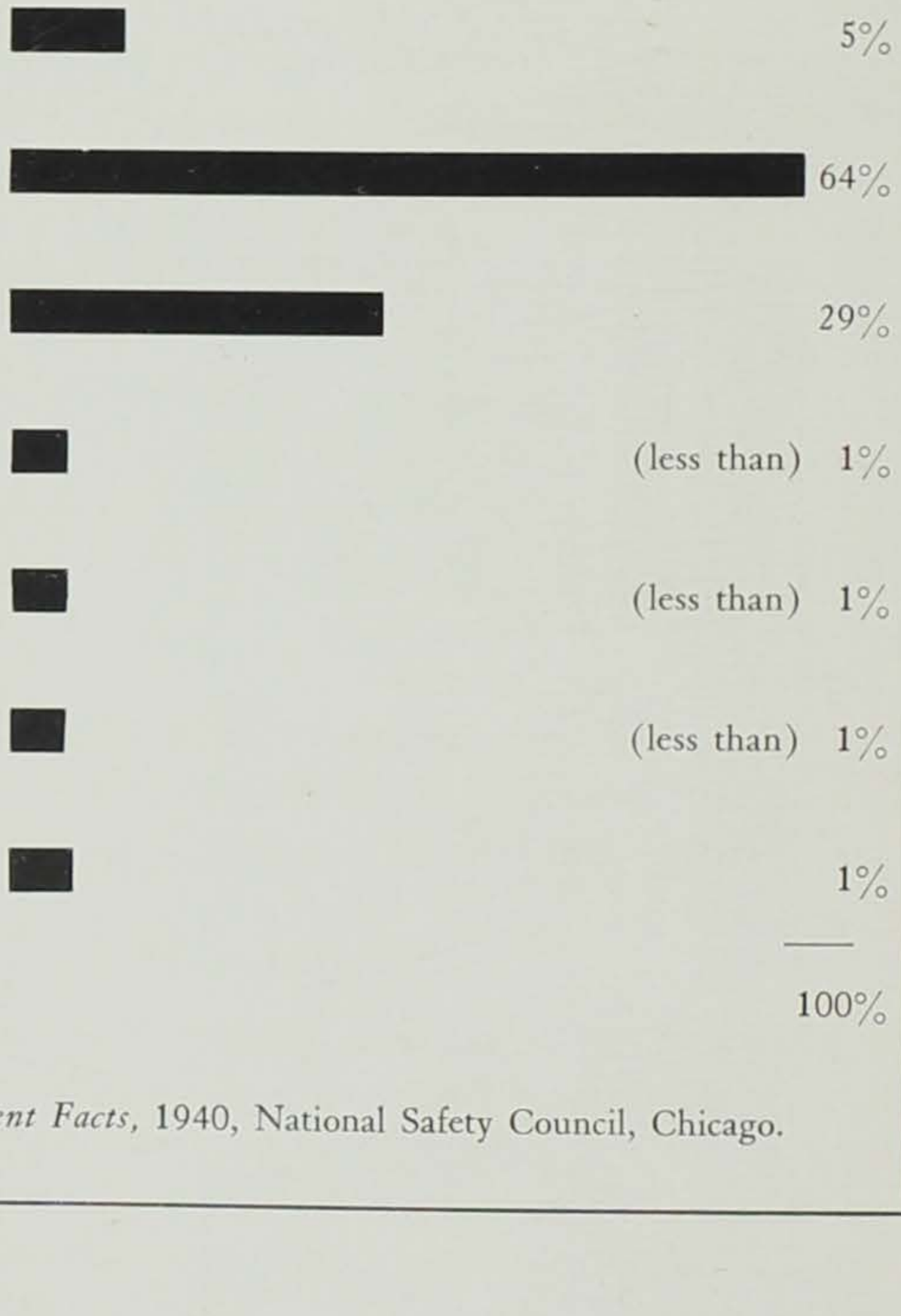
Unit Seven

TRAVELING IN CARS

Busses and Streetcars

COMPARISON OF INJURIES AND DEATHS TO PUPILS 5 TO 14 YEARS OF AGE RESULTING FROM VARIOUS TYPES OF VEHICLE ACCIDENTS IN 1939



Source: *Accident Facts,* 1940, National Safety Council, Chicago.

BACKGROUND NOTATIONS FOR TEACHERS

DESPITE THE FACT that the 1940 edition of *Accident Facts* reports that the vehicular death rate in the United States of school children (ages 5 to 14 years) has dropped 7 per cent since 1938 and 31 per cent since 1922, a large number of unnecessary deaths and injuries are still occurring each year to pupils of these ages who must ride in streetcars, automobiles, and busses.

The various types of vehicle accidents which are classified in the graph on the opposite page caused 38 per cent of all 1939 accidental deaths of pupils in the age group 5 to 14 years. These deaths, which are most numerous during the months of August, September, and October, exceed the number of pupils of this age who are killed each year in public, home, or occupational accidents. This is true, even though in 1939 children between the ages of 5 and 14 years had the lowest death rate resulting from vehicle accidents of any age group.

In our state, according to the statistics of the Motor Vehicle Department, there has been quite a noticeable increase in deaths resulting from vehicle traffic accidents. The records of the Iowa Department of Health show that the number of motor vehicle deaths among school children, ages 5 to 14, increased from 32 in 1938 to 45 in 1939.

Other valuable data on bus, streetcar, and automobile accidents, which may be used in an instructional program, are available to teachers and pupils from local transportation companies.

UNIT OBJECTIVES

In view of the foregoing information, many serious problems of safety in pupil transportation are apparent. The knowledge of types and causes of such accidents, however, is valuable only if the information can be used for instructional or corrective purposes. The use of the material in this unit should aid in decreasing the number of vehicle traffic accidents to school children by aiding in the accomplishment of the following specific objectives:

1. To establish habits of safe and courteous conduct when riding in a car or bus.
2. To cooperate in the proper use and care of cars and busses.

3. To improve self-control while riding in crowded cars or busses.
4. To acquire a feeling of responsibility for the safety of themselves and others when riding in a car or bus.
5. To appreciate the work of the operator of car or bus and to cooperate with him at all times.

ITEMS OF UNDERSTANDING

Pupils who ride in cars and busses can do much to prevent accidents by conducting themselves in an orderly manner and by showing a courteous consideration for the rights of others. The following items of understanding emphasize the safety information and attitudes which children who ride in cars and busses should know and practice. In developing this unit each teacher will want to emphasize those specific rules which are essential to the solution of local problems. (For suggestions on selecting the content of this unit to fit local needs, see page 13 of Introduction.)

Remain seated while riding.

Wait until the car or bus has stopped before getting in or out.

Help keep the bus or car clean and orderly while riding.

Refrain from playing, talking loudly, or laughing boisterously while riding in car or bus.

After getting off a bus or car, go to the curb first, then cross at crossing, if you wish to be on other side of the street.

Keep your head and arms inside when you are riding on a car or bus.

Face front when getting off a car or bus.

Be sure your fingers are out of the way when closing windows or doors.

Avoid pushing or crowding when getting on or off a bus or car.

Refrain from conversing with the operator while he is operating the car or bus. Obey his directions immediately and cheerfully.

Be ready to get on when the bus or car comes. They run on schedule.

Wait until the car or bus stops if you want to change seats.

Keep your hands away from door handles and refrain from leaning on the door while the bus or car is moving.

Refrain from touching any of the mechanical parts of a car or bus as these are just for the driver.

Watch and obey traffic signals and officers when approaching and leaving a car or bus.

Refrain from running in the aisles of a car or bus.

Be sure you have not left any articles in a bus or streetcar.

Avoid running after or hopping onto a car, bus, or any moving vehicle.

Avoid darting out in front of streetcars, busses, or any other moving vehicle.

Refrain from accepting rides in automobiles from strangers.

Stand off the street or highway while waiting for the bus to arrive.

Obey directions of the bus monitor if riding on a school bus.

Keep aisles free from books, lunch baskets, and other objects when riding in busses.

Give the proper signal to stop the car when you are ready to get off.

Step into the street only at crosswalks or at safety zones.

Look both ways, first to the *right,* before getting off a streetcar or bus. Then go immediately to safety zone or curb.

Wait on curb until car comes unless there is a safety zone where you may wait.

Grasp the hand rails firmly as you get into or leave streetcars and busses.

Stand aside and wait for passengers to alight before attempting to get on.

Observe special rules for riding in automobiles.

Refrain from riding on the running board of a car.

If taken to school in the family car, ask your parents to stop in front of the school entrance, or at the corner nearest school.

If parents stop across the street from the school, go to the nearest corner and cross the street.

Get out of an automobile on the side nearest to the curb.

SUGGESTED METHODS AND ACTIVITIES

Whenever possible, it is desirable to make use of personal experiences of pupils in introducing a unit. This method of approach will vary according to the age of pupils and the teaching situation. As a possible introduction, one child might tell about a ride in his family's new car, one might bring a story of a school bus accident, while another lower grade pupil might bring his toy cars to school. Throughout the study of this unit, pupils should be given an opportunity to practice worth-while activities that develop proper attitudes and establish correct habits of safe transportation. These learning activities should place emphasis upon positive rather than negative

behavior. The activities given here, along with those suggested by the pupils, should provide worth-while techniques and methods in developing this unit.

To interest pupils in this unit in the lower grades, ask them to bring toy cars and busses to school. Draw with chalk on the floor a well-known street which can be used with the toy cars to demonstrate pupil-made safety rules.

Discuss a picture or poster showing bus safety.

Read stories in books or readers about cars and busses. Follow with a discussion of the story and draw pictures relating to the story.

Encourage informal conversation by asking such questions as:
How can I help the operator of a car or bus?
What kind of passengers do bus drivers like?
What trips have you taken on a bus or in your family car?

Listen, if possible, to a safety program broadcast. Often local stations give such programs.

Show films or lantern slides which show safety while riding in cars and busses.
See—National Education Association, *Visual Aids in Safety Education,* 1940, Washington, D. C.

Discuss a picture which shows the safe way to get on a bus.
What do you see in the picture?
Where are pupils standing?
Are older pupils helping the younger children to use the bus safely?

Make a set of rules for safety on way to and from school. All those who *walk* might make one set of rules, those who come in parents' *automobiles* another, and those who ride *busses* or *streetcars* another.

Write a story of a trip that you have taken in an automobile or bus.

Make a drawing of a street that you use to show where one can stand safely to wait for a bus or a car. Also show traffic signs and areas where busses and cars should stop.

Make a list of ways in which one can help the bus driver.

Find and sing songs about streetcars, busses, and automobiles. (See—Caesar, Irving, *Sing a Song of Safety,* New York, The Author, 1619 Broadway.)

Write for a time schedule of busses and cars. These may sometimes be used when planning a field trip.

Write a letter to parents asking permission to go on an excursion by bus.

Make a scrapbook which might include:
Safety rules for riding in car or bus.
Pictures of cars and busses.
Pictures of children riding safely in cars and busses.
Drawings of traffic signs.
Stories about traveling by car or bus.
Safety poems and songs.
Newspaper clippings of car or bus accidents.
Drawings illustrating safe ways to travel.

Select a committee to help keep a record of accidents occurring on cars and busses which involve school children.

Make a frieze showing safe ways to travel in cars and busses. This might show ways that people used to travel.

List the common traffic signs in your community which regulate traffic of cars and busses. Construct these signs in miniature if they can be used for plays, exhibits, or discussions.

Suggest that pupils make a study of different types of cars used in their own city and then make their own rules of safety.

Arrange for a committee to secure information on passenger accidents and suggestions for their avoidance (from interurban, streetcar, and bus companies). If the school keeps records of student accidents, a form similar to the Standard School Accident Report Form[1] could be used.

Prepare pupils for taking a field trip in a car or bus.
Discuss safety problems related to such an excursion and have them formulate their own rules, and then see that they have an opportunity to practice the safety rules which they have set up.

Make posters illustrating the safety rules that pupils have learned as a result of a trip on a bus or car.

Arrange a display of pictures, posters, and drawings of cars and busses on a section of bulletin board which may be used as a basis for safety discussions and story writing.

Tell of safety rules which your parents ask that you observe while riding in family car.

Give demonstrations to show:
How to ride in an automobile.
How to get on a car or bus.
How to get off a car or bus.
Where to stand while waiting for a car or bus.
How to cross a street after getting off a car or bus.

Give a "Safely We Travel" assembly for parents and pupils. This may be an original play or a dramatization of some safety activity on which the class has been working.

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[1] *Safety Education, A Course of Study for Grades and High School,* revised 1940, Department of Public Instruction, pp. 16-17.

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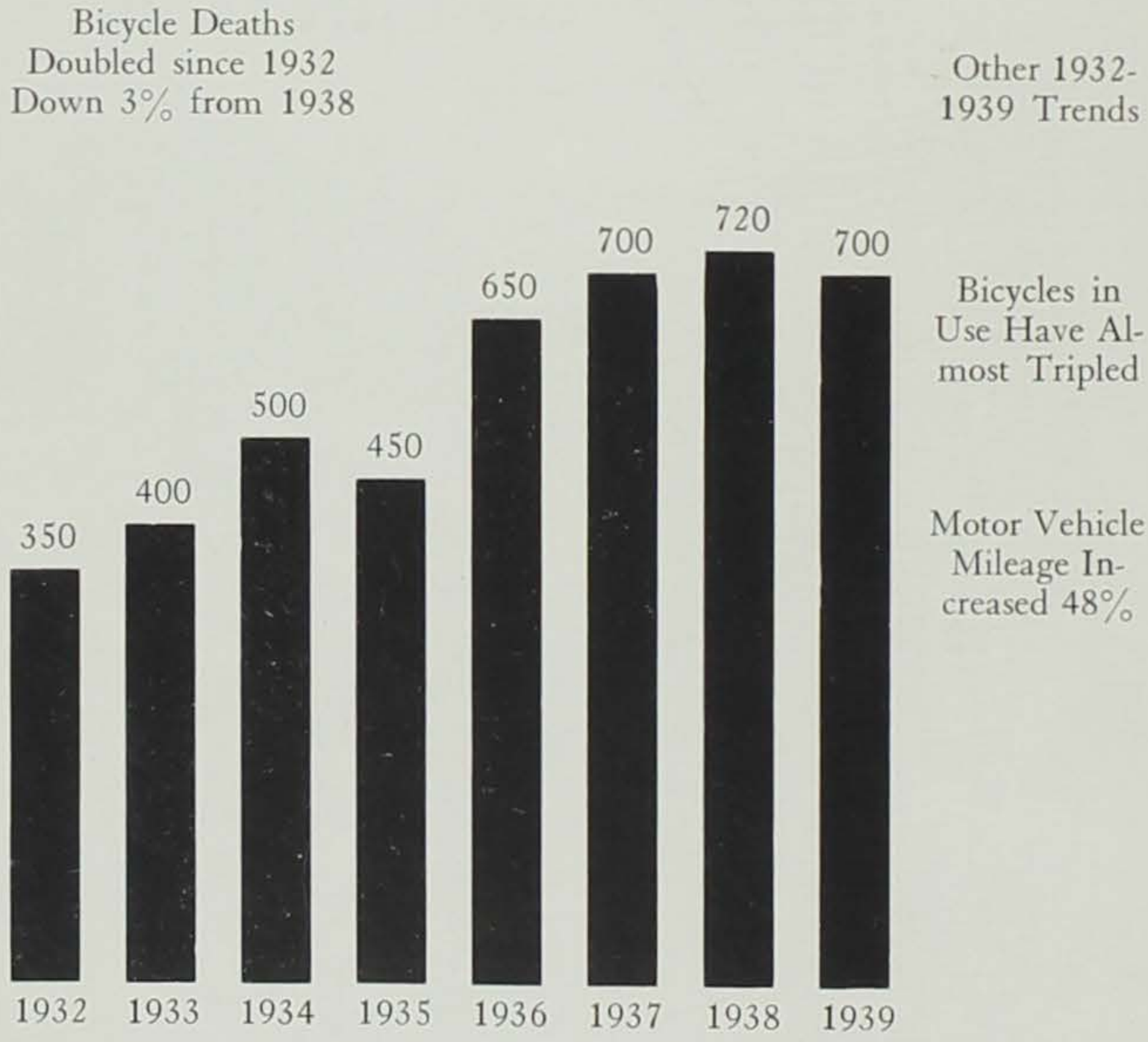
Unit Eight

Safety on WHEELS

BICYCLE MOTOR VEHICLE DEATHS IN THE UNITED STATES



Source: *Accident Facts,* 1940, National Safety Council, Chicago.
Approximations based on state reports and other information.

BACKGROUND NOTATIONS FOR TEACHERS

In the year 1939, about 700 deaths resulted from collisions between bicycles and motor vehicles. This number was only a slight improvement over the 1938 toll of 720 deaths. Bicycle-motor vehicle injuries totaled approximately 34,000 in 1939, or nearly 49 injuries for each death. The causes of these accidents were varied. Three of every four bicyclists injured or killed were violating some traffic law, according to special reports from cities and states. Other data regarding these accidents indicated that:

One-fourth involved violations of drivers.

One-fourth involved defective bicycles.

One-half occurred at intersections.

Two-thirds occurred during daylight.

In the last six years the number of bicycles in use has nearly tripled. Motor vehicle mileage increased 48 per cent, but total vehicle deaths were up only 11 per cent.

Increased Use of Bicycles in United States Since 1935[1]

1935	600,000 sold
1936	1,400,000 sold
1937	2,000,000 sold
Estimated number in use	10,000,000

Ages of Those Killed or Injured on Bicycles in United States During 1939[2]

Age Group	Deaths	Injuries
0- 4	..	500
5-14	350	18,500
15-24	230	12,000
25-44	50	2,000
45-64	50	500
65 and over	20	500

It is important to note that approximately 90 per cent of the deaths and injuries from bicycle accidents involved youth between the ages of 5 and 24 years with the great majority of such accidents occurring to children between 5 and 14 years. Since pupils of this latter age group are in the elementary and junior high school, there is an excellent opportunity for teaching bicycle safety to these grade levels.

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1 *Accident Facts*. 1940, National Safety Council, Chicago.
2 Loc. cit

Summary of Fatal Bicycle Accidents in Iowa[1]

Age Group	1938	1939
0- 4	..	..
5-14	3	3
15-24	5	2
25-64	2	..
65 and over	..	1
All ages	10	6

The number of bicycle accidents occurring in any locality appears to be dependent upon four factors:

The Degree of Exposure

In the last six years the number of bicycles in use has nearly tripled, while the motor vehicle mileage increased 48 per cent during the same period.

The Traffic Conditions

The number of streets with vehicular speed restrictions, the distribution of traffic volume, and the degree of traffic law obedience are examples of traffic conditions which affect the safety of bicycle riders as well as the safety of motorists and pedestrians.

The Behavior of Bicycle Riders

Approximately 72 per cent of bicycle-motor vehicle collisions involved traffic violations by the bicycle rider. It is imperative that the bicycle rider assume more of the responsibility for keeping out of accidents. He must learn the essential safe riding practices and exercise them.

The Condition of Bicycles

Reports indicate that approximately 23 per cent of the bicycle-motor vehicle collisions involved defective bicycles. The most serious defect is the lack of proper lighting equipment. Many bicycles are not equipped with proper warning devices.

Bicycle accidents can be reduced by a well-rounded program of accident analysis and reports, education, safety legislation, and enforcement. These correctional measures are interdependent and only by cooperative efforts of the entire community can such accidents be materially reduced.

[1] Iowa State Department of Health, Des Moines.

UNIT OBJECTIVES

Street safety cannot be taught too often. Changing traffic problems require that new concepts and goals be determined to meet the needs of particular pupils and communities. The objectives used in planning this unit are as follows:

1. To know the safe use of one's playthings "on wheels."
2. To keep one's playthings "on wheels" in a safe place when they are not in use.
3. To understand that by being courteous (showing good sportsmanship), bicycle riding is made safe.
4. To understand that a defective bicycle is unsafe.
5. To acquire the ability to guard one's own safety in traffic situations as a pedestrian, a passenger, or as a rider.
6. To know how a city controls its traffic.

ITEMS OF UNDERSTANDING

Teachers will want to emphasize those items of understanding which will be most helpful to children in their particular community. The content of this unit will depend upon the number of children owning bicycles or other playthings "on wheels" and upon the special hazards of the community. (For suggestions on selecting the contents of this unit to fit local needs, see page 13 of Introduction)

Play on the sidewalk or in the yard with all wagons, scooters, tricycles, skates, and other playthings "on wheels."

Avoid carrying sharp objects while playing "on wheels."

Learn how to start and *stop* when playing "on wheels."

Skates

Be certain that skates and straps are in good repair.

Fasten skates securely on your feet.

Skate on smooth surfaces only.

Keep to the right on the sidewalk.

Look carefully before crossing a driveway.

Remove your skates before crossing a busy street or before going up steps.

Avoid pushing or tripping while skating.

When skates are not in use, put them where they will not cause falls. Leaving them on stairs may result in a serious accident.

Tricycles, Wagons, and Scooters

Ride on the sidewalk or private drive.

Keep to the right side of walk.

Be courteous to everyone using the sidewalk.

Steer straight.

Refrain from coasting into the street.

Carry or pull playthings "on wheels" across busy streets.

Keep playthings "on wheels" padded and in good repair.

Put wagons, tricycles, or scooters where they will be safe and not cause falls, when they are not being used.

Bicycles

Wait until you are old enough to balance yourself and to understand traffic problems before attempting to ride a *two-wheeled* vehicle.

Ride a bicycle that fits you.

Learn to ride in a park or other safe place. Stay off all streets until you can ride well.

Know the community regulations for operating a bicycle and follow all requirements closely.

Use a guard clip for trousers or slacks.

Obey all traffic signs, signals, and rules which such vehicles are expected to observe.

Unless local ordinances provide otherwise, ride *on* the sidewalk in residential areas but *off* the sidewalk in the business district.

Go slowly, sound horn, and turn out or dismount when meeting pedestrians or children on the sidewalk. Pedestrians always have the right-of-way.

Avoid riding on a playground when pupils are playing.

When riding at night, wear light-colored clothing to help motorists see you.

Equip your bicycle with a good headlight, taillight or reflector, horn, and luggage rack or basket. Even old bicycles can be properly equipped at a very small cost.

Keep the brakes, steering apparatus, and all other mechanism in good working condition, and keep your bicycle adjusted to fit you.

Choose routes which will avoid heavy traffic and walk when it is necessary to cross busy intersections that have no traffic signals.

Use arm signals to indicate your intention to slow down, stop, or turn. Ride close to the right side of the street and turn right-hand corners close to right curb. When you make a left turn across traffic, be sure the way is safe and make a wide turn.

Ride single file—don't wobble, zig-zag, weave about, or make sharp turns. Such activity interferes with traffic and endangers your life.

Avoid carrying a passenger on your bicycle regardless of the number of times others ask for rides. Pulling children on skates or in wagons behind your bicycle is likewise a dangerous practice.

Keep both hands firmly on the handlebars except when signaling, and avoid all stunts or trick riding on the streets or highways.

Never hold on to any moving vehicle or hitch your bicycle to it. You might be knocked off, crushed, or thrown into the path of another vehicle.

Carry all parcels in a basket or strap them to a carrier. Never carry them in your hands.

In riding out of an alley or driveway, stop to see if there are oncoming pedestrians or vehicle traffic.

Never attempt to squeeze through narrow spaces between vehicles. To squeeze between two moving vehicles, moving vehicles and the curb, or moving vehicles and parked cars is always dangerous as the gap may close before the bicyclist can get through.

Keep your bicycle on the porch, in the garage, in a bicycle rack, or at some other safe place when you are not using it.

Be a good sport. Always ride with *caution* and *courtesy*.

SUGGESTED METHODS AND ACTIVITIES

The following activities, along with those suggested by the pupils, should provide worth-while techniques and methods in developing this unit:

As a possible approach to this study, each pupil may be given an opportunity to tell about his own playthings "on wheels" and how he uses them. A discussion of the hazards that are common to those who play "on wheels" will lead naturally to the pupils' own suggestions of safety rules and precautions.

Arrange for pupils to bring certain of their vehicles to school on specified days. Lessons and demonstrations on balance and safe roller skating may be given during playtime to the primary children. The safe use of wagons, scooters, tricycles, and other playthings "on wheels" may be observed and practiced on other days.

After pupils have noted the hazards of playing "on wheels," formulated their own safety rules, and observed and practiced the safety precautions with each vehicle at school, pupil-made checklists may be sent home to be discussed.

Actual practice in "checking" wagons, scooters, and bicycles for mechanical condition and equipment may be made a valuable project. See that such "checking" has an adequate follow-up.

Encourage the children to compose a song about skating. Waldteufel's "The Skaters"—waltz, Victor record 35736, permits of various skating figures that will add a thrill to their play. (Skating with a partner, forming a line of four or five with each pupil placing his hands on shoulders of the one in front, running on skates, sliding, etc.)

Invite a playground director to the classroom to discuss with the pupils "Safe Play on Wheels."

Secure an official Rule Book for an All-American Soap Box Derby. (See bibliography.) Discuss the rules regarding the construction of a soap box car and list the value of such projects.

If possible, have a soap box car brought to school for a demonstration. Ask the owner to explain how to build one and where to secure the material for a car.

Bicycles should be kept in garages when they are not being used. Discuss other ways they are like automobiles.

Discuss what is meant by a well-equipped bicycle and list all important equipment. Ask a bicycle rider to bring his bicycle to school and tell of its safety equipment. Compare it with a picture of a bicycle that has additional safety devices.

Have a bicycle rider tell how he obeys the safety rules for riding. Center a discussion around safe bicycle riding. Formulate rules. Check these with the rules made by the National Safety Council and those listed in the Items of Understanding of this unit.

List local community hazards that a bicyclist must consider when riding.

Make posters of safe bicycle riding.

Invite the children to bring their bicycles to school for a demonstration of safe riding. Mark off a street on the playground. Have a rider demonstrate safe riding and allow the pupils who are observing to suggest the rules for him to demonstrate. If possible, with the help of the police, demonstrate actual situations on the street.

Ask pupils to bring in reports on the History of the Bicycle. Valuable note books may be made with this material. Reference books to obtain this information include:

Petersham, *The Story Book of Transportation,* John C. Winston Co.
Webster, *Travel by Air, Land and Sea,* Houghton, Mifflin Co.
The Encyclopedia of Sport, and other reliable encyclopedias.

In order to get information about a modern bicycle, invite some person who is an authority on bicycle workmanship to tell the pupils the features

of a durable and dependable bicycle. (Someone who has been a bicycle service man or racer, or who has taken long trips on a bicycle, will often prove an asset to an assembly program or a group conference.)

Articles on bicycles and bicycle riding may be used in preparing a valuable clipping book as the year progresses. Section headings might include:

Bicycle Trips
Proper Clothing
Accidents

Send for *Sammy Sprocket Says,* National Safety Council, 20 North Wacker Drive, Chicago (8 pages). Sammy Sprocket tells how to ride a bicycle safely.

Construct simple tests using the following devices: multiple choice, "yes" and "no," "safe" and "unsafe," fill-in, classifications (e.g., putting into appropriate lists of "safe" and "unsafe"), and following directions (e.g., write a safety rule, or draw a safety sign.)

Make a frieze showing safety on bicycles.

Get a film on bicycle safety to be shown at an assembly. (See bibliography.)

A Bicycle Club

An interesting and popular activity is the bicycle club (battalion). Only riders who have a bicycle in good condition, and who know and practice safety rules are admitted and retained as members.

Citizenship may be taught as an objective of pupil organizations in safety. Material on bicycle organizations may be secured from the Iowa State Safety Council, Des Moines.

The following statements may be placed upon the board, assigned to committees, and later discussed:

1. Self-preservation and respect for the safety of others are important principles of good citizenship.
2. The safety of a community depends upon the individual's respect for authority and his obedience to laws.
3. The good citizen does not trespass upon the rights or property of another.

The following activities are often carried on by successful junior bicycle clubs:

A careful selection of members. Only bicycle riders who have a vehicle in good condition and who know and practice safety rules are admitted and retained as members.

The preparation of a simple but complete set of by-laws.

The choice of an interested and dependable faculty sponsor.

The adoption and distribution of pledge cards for bicycle riding.

A bicycle survey:
  Number in use
  Condition
  Bicycle accidents
  Safe and unsafe practices and areas

The provision for inspection service. (See chart below.)

The drawing up, adoption, and supervision of regulations for those who ride bicycles.

The supervision of bicycle racks or rooms.

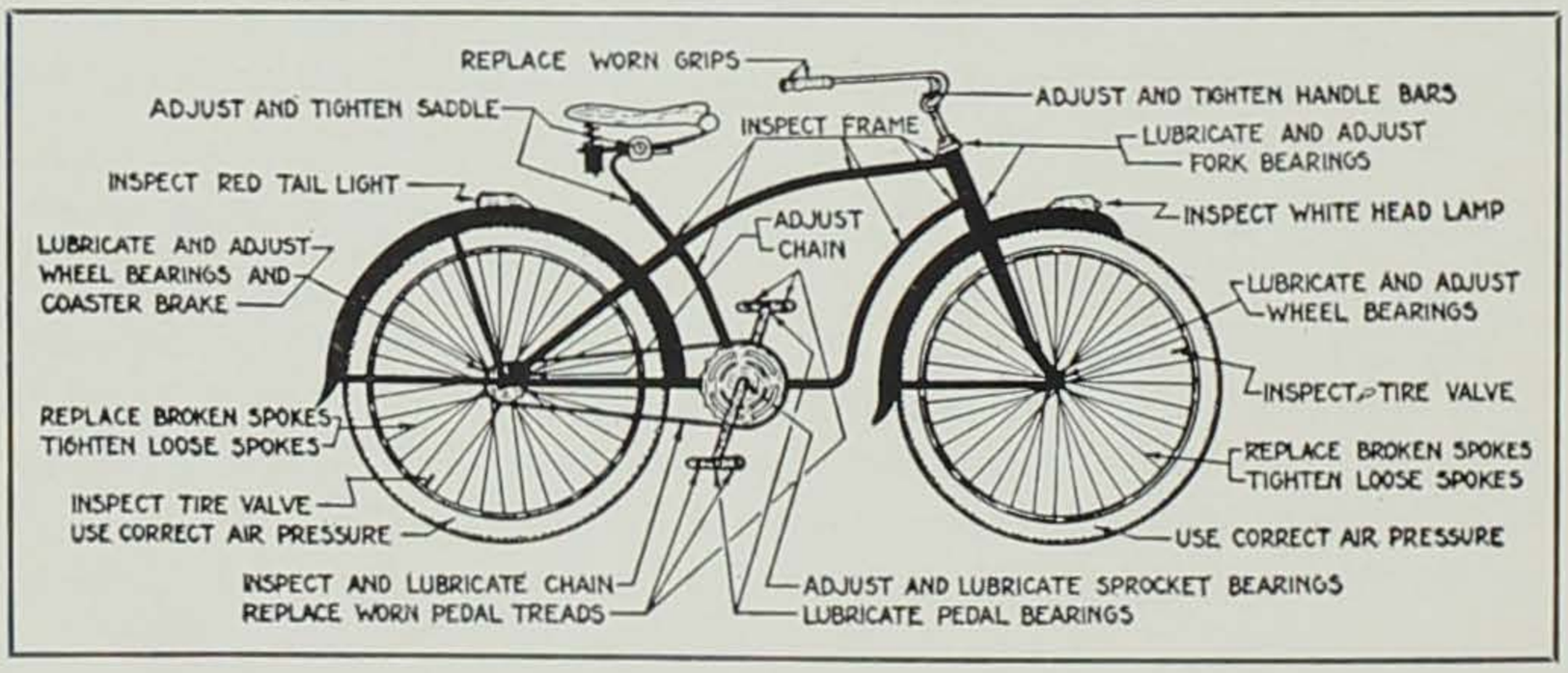
Demonstrations for younger children:
  How to adjust a bicycle to fit size of the rider.
  The correct way to mount and dismount a bicycle.
  How to use the proper hand signals.

The arrangement of supervised trips to points of interest.

The collection of bicycle safety literature.

Efforts to interest others in bicycle safety through bulletins, articles in the school paper, posters, assemblies, and Parent-Teacher Association meetings.

The following chart may be used as a guide to pupils in preparing inspections sheets and in checking mechanical parts of the bicycle. The chart shows points that require regular attention in order to keep a bicycle in a safe condition.



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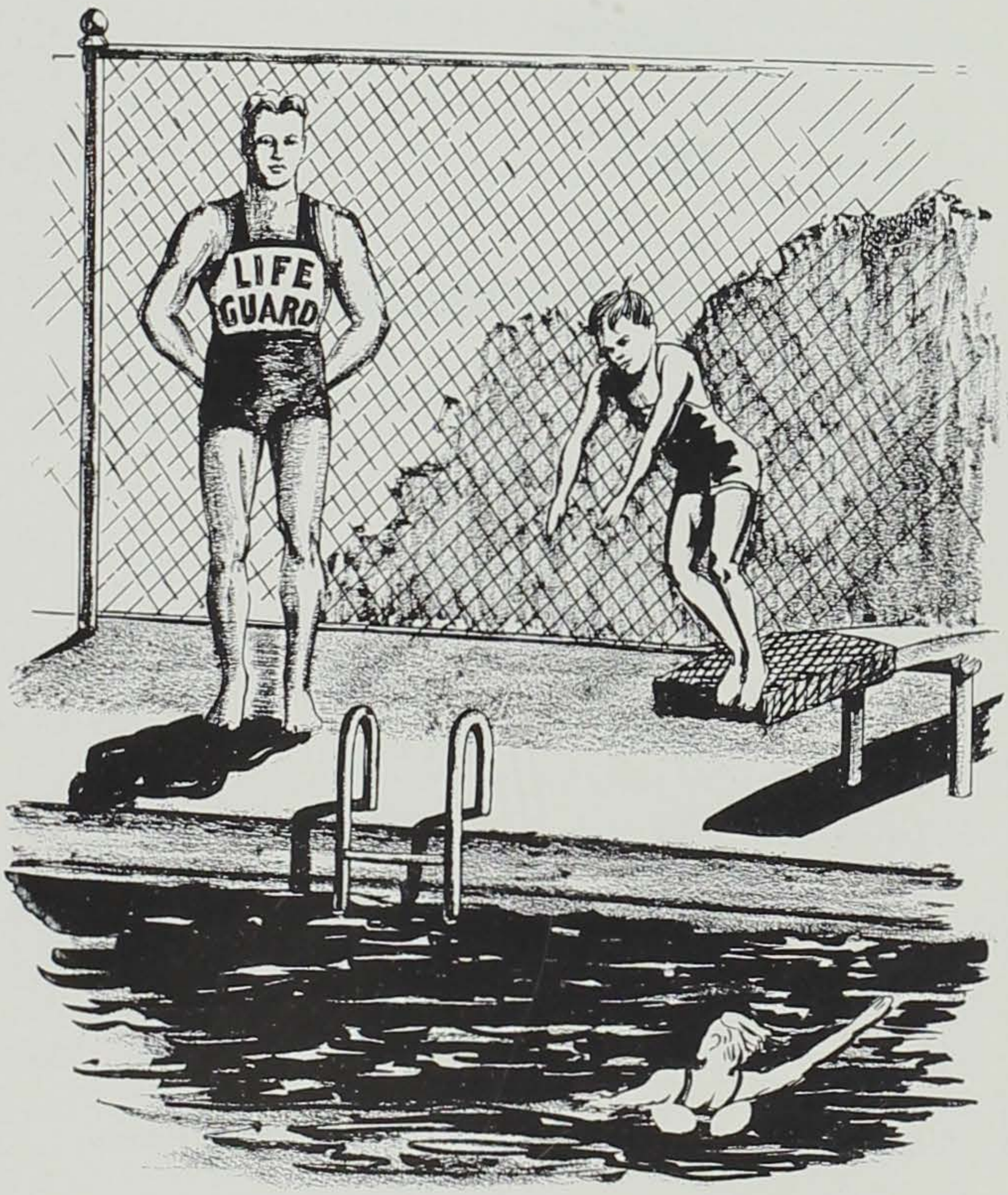
Unit Nine

WATER *Safety*



A COMPARISON OF DROWNING INCIDENCE WITH OTHER TYPES OF PUBLIC ACCIDENT DEATHS IN UNITED STATES DURING 1939

	Number	Per cent*
Drowning	4,400	28%
Falls	2,600	17%
Firearms	1,300	8%
Conflagrations, Burns and Explosions	450	3%
Railroad (not with motor vehicles)	2,800	18%
Streetcar (not with motor vehicles)	250	2%
Other Vehicles (not with motor vehicles)	400	3%
Water Transportation	850	5%
Air Transportation	250	2%
Others	2,200	14%
Public (not motor vehicle)†	15,500	100%

Source: *Accident Facts,* 1940, National Safety Council, Chicago.

*Approximate percentage of total.
†The *total* number of accidental deaths in United States during 1939 was 93,000.

BACKGROUND NOTATIONS FOR TEACHERS

IN THE YEAR 1939 there were approximately 4,400 public accidental drownings, excluding those in connection with water transportation. Nearly two-thirds of these deaths involved persons under 25 years of age. About one-half of the drownings occurred in the three months of June, July, and August. The total drownings in the United States during 1939 were estimated at 6,700, which, according to the United States Census Bureau, is a considerable decrease from the 1938 figure of 7,347 drownings. This shows a reduction of almost 9 per cent.

Age Distribution of All Accidental Drownings[1]
(Latest available figures)

Age	Number
Under 5	623
5- 9	549
10-14	864
15-19	1,152
20-24	794
25-34	983
35-44	783
45-54	733
55-64	498
65-74	248
75-84	83
85 and over	8
Age not stated	29
All ages	7,347

Accidental Death Summary—State of Iowa[2]

	1938		1939	
Age Group	Public Drownings	Home Drownings	Public Drownings	Home Drownings
0- 4	0	5	0	13
5-14	25	1	17	0
15-24	18	2	16	0
25-64	12	2	8	3
65 and over	3	1	2	1
All ages	58	11	43	17

[1] Source: *Accident Facts,* 1940, National Safety Council, Chicago, p. 68.
[2] Source: Iowa State Department of Health, Des Moines.

Water fatalities are exceeded only by traffic accidents during the summer months. Many such accidents are the result of ignorance or carelessness on the part of victims of school age. For this reason, the responsibility for teaching water safety falls largely upon those who are educating young people.

UNIT OBJECTIVES

The foregoing facts indicate that the teacher must have a clear understanding of the water safety problems that confront her pupils. In order that water safety instruction will be most timely and effective, each teacher should select specific goals in terms of the needs of her particular pupils. This unit, however, was planned to accomplish the following general objectives:

1. To choose safe places for wading and swimming.
2. To understand which kinds of boats are safe, and the importance of observing the precautions necessary for safe boating.
3. To see the value of becoming an expert swimmer, and appreciate the necessity of conforming to safe swimming practices.
4. To develop habits of caution when on or near water.
5. To understand the dangers of swimming and boating.
6. To learn the American Red Cross life-saving method, understand the suggestions for rescue, and know how to apply the Schaefer method of artificial respiration.

ITEMS OF UNDERSTANDING

Teachers will want to emphasize those items of understanding which are most necessary for the water safety of her particular pupils. To do this most effectively, it is important that each teacher have a knowledge of the water hazards in the community and the water practices of the children. (For suggestions on selecting the content of this unit to fit local needs, see page 13 of Introduction.)

Select the safest possible places to wade or swim.
Avoid entering strange streams or "swimming holes."
Use only authorized pools or beaches.
Use areas that are supervised by lifeguards.
Keep inside the lifeline.
Use only those wading or swimming areas and approaches that are clear of broken glass, projecting stones, poisonous weeds, and overhanging branches.

Avoid pools and beaches that have unclean water.

Wade or swim in areas that are free from submerged roots, weeds, and stones that might impede or injure you.

Avoid water that is too deep or too swift for your swimming ability.

Dive only in deep water.

Safeguard yourself and others against water hazards.

Learn to be an expert swimmer at the earliest opportunity.

Master the art of diving and floating.

Remember that it is possible to drown in shallow water. (Small children should not lean over the edge of bath or laundry tubs and should be closely watched when in or near pools.)

Never make or take a dare when wading or swimming.

Always be accompanied by an adult lifeguard or some other good swimmer.

Never overestimate your strength or ability.

Wait an hour or more after eating before entering the water.

Enter water gradually if you are overheated.

Avoid staying in the water too long. In most instances, thirty minutes should be sufficient exposure at one time.

Refuse to join in any rough play either on the shore or in the water.

Avoid unnecessary running, pushing, throwing of sand, and other acts which cause injury.

Observe all local pool and beach rules.

Learn how to save another person's life in case of accident in the water. The American Red Cross advocates the following method of rescue:

ROW—Use a boat if available.

THROW—a life buoy, if no boat can be used.

GO—yourself when equipment is not at hand.

TOW—to safety by cross-chest method.

Avoid becoming panicky during a water emergency.

Know how to correctly administer artificial respiration. (See bibliography.)

Understand the methods that are advocated by the American Red Cross and other organizations for protection on the waterfront.

Safeguard yourself and others against boating and canoeing accidents.

Step squarely in the center of the boat when getting in.

Never go in a canoe, boat, or raft on deep water unless you know how to swim.

Stay out of all boats if the water is rough or a storm is approaching.

Avoid overcrowding a boat or canoe.

Carry a life buoy for each person occupying the boat or canoe.
Learn how to row or paddle properly before attempting to do so by yourself. It is best to learn in the boat or canoe that you plan to use.
Avoid screaming or other excitement while in a boat or canoe.
Always sit or kneel when paddling a canoe.
Never stand up, scuffle, or change seats in a boat on open water. The center of gravity is lower when occupants are seated.
Avoid rocking or leaning over the edge of a boat or canoe. The center of buoyancy and gravity shifts when the boat tips. A canoe is especially unstable.
If your boat or canoe overturns, try to hang on to it and float until aid arrives, unless you are close to shore and can swim to safety.
See that your boat or canoe is properly protected from possible danger when not in use and that is is always in excellent condition.

SUGGESTED METHODS AND ACTIVITIES

The following activities, along with those suggested by the pupils, should provide worth-while techniques and methods in developing this unit.

As a possible approach to this study, discuss with the pupils the special water safety problems that concern them. For example:
What water areas exist in the community, such as ponds, brooks, etc.?
What opportunities are there for boating?
Will summer vacations include opportunities to be near the water?
Will water activities be supervised?
Are there convenient places where children have an opportunity to gain confidence in the water by wading, or where swimming lessons are taught?

In order to discover what small children already know about water safety, ask them to tell:
What fun they have near the water.
What precautions they take to prevent an accident when in the water.
Why an adult should go with them when they play near the water.
Why they should stay away from the edge of deep water.
Why it is important to secure the permission of a parent before entering the water or taking a boat ride.

Read and discuss stories of Chinese children who live in houseboats. Ask how the little barrels prevent drowning. Discuss what our children use on their backs instead of barrels. (Wings, tubes, etc.)

Have the pupils name the different types of equipment to give beginning swimmers confidence in water and demonstrate the proper place and way to wear water wings. (Posters may be made to illustrate this.)

Have the pupils who know how to swim tell how and where they were taught.

Discuss the meaning of "skillful swimming."

Give some pupil who has taken lessons an opportunity to demonstrate swimming movements; first, while standing, then in a prone position across a bench, chair, or desk. Let others practice the movements. (Pupils should know a variety of swimming strokes. See—Lyba and Nita Sheffield, Authors and Publishers, *Swimming Simplified,* San Francisco, California.)

Discuss the advantages of learning to swim under a good instructor.

Prepare a History of Swimming as a class project. Include such interesting episodes as:
The legendary swimming of the Hellespont.
The training of Roman youth to swim the Tiber.
Julius Ceasar's skillful swimming.
Compulsory swimming instruction in the Scandinavian countries.

In reviewing the history of swimming, discuss why many countries have taken such an interest in the sport. Why should we?

From newspaper clippings and other sources, have pupils compile a list of causes of accidents to good swimmers.

Prepare an article on safe water habits for the school paper.

Make a map of the city showing authorized swimming places. Are there enough? Are they well supervised, safe, and clean?

Take an excursion to a swimming pool, if none is available at school, and make a survey of the safety rules and conditions. Have the lifeguard demonstrate the different types of rescue and methods of resuscitation. Provide opportunity for practice by pupils.

Prepare a booklet illustrating the different types of rescue. Include:
Rescue from the shore
Rescue made by wading
Rescue from a small craft
Swimming rescue
Rescues made with special equipment

Prepare a chart which will list the qualities to develop and use in event of emergencies. Include:
Clear thinking
Emotional control
Physical fitness
Understanding of circumstances
Knowledge of what to do and how to proceed
Immediate action

List the conditions under which a non-swimmer should not attempt a rescue.

Prepare a list of causes of boating accidents and tell how to avoid them.

Write a brief article on what a child should do if he:
- Rides in a boat
- Falls into deep water
- Has a cramp
- Sees someone who is drowning

Make a "Water Safety" booklet. Picture and describe the causes and prevention of water accidents.

Make a frieze showing water sports.

Demonstrate how the Indians kneeled in a canoe. What does this activity teach us?

List the precautions taken by boat companies to protect passengers. If possible, get a life belt and demonstrate the way to put it on.

Make a list of the things you would look for when inspecting your boat (or canoe) before taking out any passengers.

Discuss the meaning of such terms as buoyancy, center of buoyancy, and specific gravity, and tell how the understanding of such terms might prevent drowning accidents or aid in rescues.

Introduce the study of artificial respiration by a discussion of the structure and work of the lungs and the relation of breathing to swimming. An explanation of the following principles might prove helpful:

Escaping air from the lungs causes specific gravity of the body to be greater than the water it displaces, and the body sinks.

The rate at which the body descends is in exact proportion to its specific gravity.

Study the Schaefer method of artificial respiration.

Secure a swimming instructor to give demonstrations, and provide each pupil with the opportunity of guidance and practice in administering artificial respiration.

Discuss the various types of shocks which demand artificial respiration and why it is important to give artificial respiration at the place the patient received his injuries.

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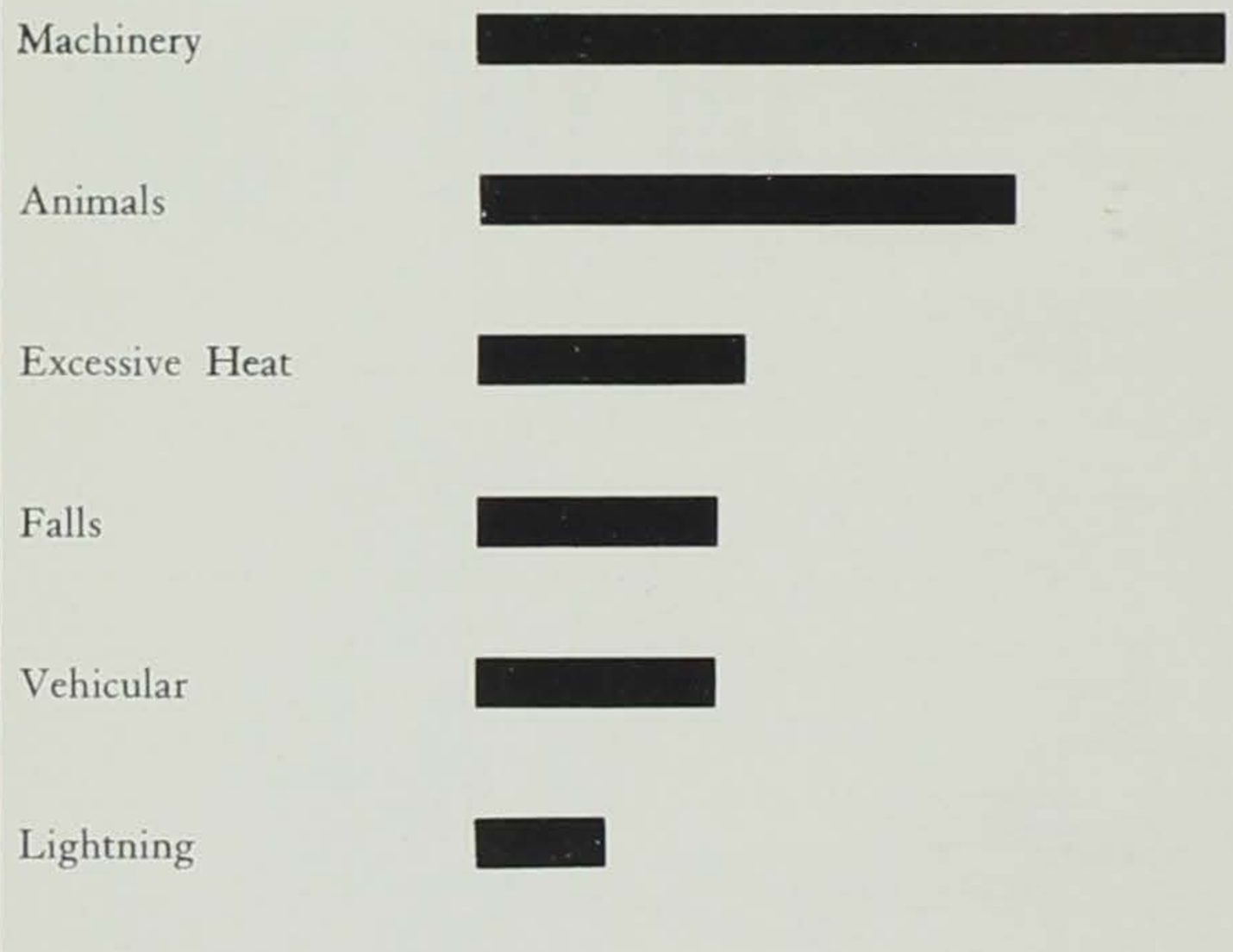
Unit Ten

Safety ON THE FARM

CAUSES OF FATAL FARM ACCIDENTS



Source: Kansas Board of Health Reports 1930-1939.

Note: It is felt that the above data for the State of Kansas corresponds closely to the farm accident situation in Iowa.

BACKGROUND NOTATIONS FOR TEACHERS

FARMING LEADS ALL INDUSTRIES in the number of accidental deaths. During 1939, about 4,200 farmers were killed in the United States as the result of agricultural accidents.[1] These deaths make up 27 per cent of all occupational accident fatalities. While this figure is the largest proportion for any industry, it must be remembered that farmers constitute about 26 per cent of all gainful workers which indicates that their fatal accident experience was about average for all industries.

Agriculture compares unfavorably with some employments, however. Manufacturing, for example, includes 22 per cent of all workers but only 11½ per cent of all occupational accident deaths. The 1939 distribution of occupational deaths, compared to gainful workers by industries, was approximately as follows:

	Deaths Per Cent	Workers Per Cent
All industries	100	100
Agriculture	27	26
Trade and service	23	39
Construction	17	4
Transportation and public utilities	11½	7
Manufacturing	11½	22
Mining, quarrying, oil and gas wells	10	2

The reasons for agriculture having the highest percentage of accidental deaths are, (1) this occupation has a great number of untrained workers, (2) there have been relatively few safety devices on farm machinery, (3) there has been a limited amount of first aid given, and (4) the farmer has received little accident prevention education compared with that given the worker in other industries.

The adjoining bar graph indicates the major causes of farm accidents in the state of Kansas.[2] It is especially important to note that machinery and animals are involved in approximately one-half of the fatal accidents on the farm. According to the Illinois Agricultural Association's file of news clippings covering over 6,000 farm accidents which have occurred during the last two years, over one-

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1 *Accident Facts*, 1940, National Safety Council, Chicago.
2 Note: Similar data are not available for Iowa but the above facts are undoubtedly typical of the farm accident situation in most mid-western states.

half of all non-fatal farm injuries in that state resulted from accidents in handling machinery and animals.

The particular machines that are involved in these accidents are tractors (most frequently), circular saws, plows, discs, corn pickers, and reaping machines of various types. In some sections, electrical equipment is a recent cause of injury on the farm, and such hand tools as axes, pitchforks, scythes, and corn knives always contribute to the rural accident problem.

Accidents involving farm animals include being kicked by a horse, mule, or cow (most frequently), being thrown from a horse, and being gored by a bull. Run-away teams (vehicular accidents, on graph) are also common causes of farm accidents involving animals.

The rural home accident problem corresponds with that of all homes throughout the nation. (See Unit III.) The following reports from three states indicate that falls, burns, and gun wounds cause almost 75 per cent of farm home accident fatalities:

Accidental Deaths in Farm Homes[1]

Falls	39 per cent
Burns	24 per cent
Firearms	8 per cent
Poison	6 per cent
Mechanical suffocation	3 per cent
Poison gas	1 per cent
All others	19 per cent

Accidental death caused by firearms is an all too common tragedy of the farm and home. During 1939, there were 2,600 such deaths in the United States. These accidents, over one-half of which occurred while the victim was hunting, were most common to young people between the ages of 5 and 24. While accidents with firearms are not entirely a rural problem, the subject is dealt with in this unit.

UNIT OBJECTIVES

The preceding facts indicate clearly that agriculture is considerably more hazardous as an occupation than is commonly believed. Inasmuch as Iowa is essentially a rural state, accident prevention training for the farm boy and girl is of vital importance. It is hoped that

[1] *Accident Facts*, 1940, National Safety Council, Chicago.

the material in this unit will help to decrease the number of accidents on Iowa farms by aiding in the accomplishment of the following objectives:

1. To recognize the hazards that are common to rural life.
2. To develop safe habits in the use of farm tools and machines.
3. To develop safe habits in handling farm animals.
4. To eliminate hazards and exercise precaution about the farm home.
5. To become habitually skillful in the safe use of firearms.

ITEMS OF UNDERSTANDING

Teachers will want to consider those rural hazards that are most common to her particular pupils. In some areas, the dangers of electrical power, complex power machinery, or insect poisons may be of sufficient importance to receive special emphasis, while in other sections of our state the proper use and care of animals, hand tools, or firearms may need to be stressed. (For suggestions on selecting the contents of this unit to fit local needs, see page 13 of Introduction.)

Tools

Be careful in using such cutting tools as axes, hatchets, pocket and corn knives, chisels and saws. Avoid exposing any part of the body to contact with the sharp edge of tools.[1]

When using pocket, corn, or hedge knives, cut away from the body. Never carry sharp tools when you are running.

Swing a scythe or sickle away from the body. Grip such tools firmly and avoid striking bystanders. Hang such tools with blade fastened tightly or removed.

See that axe, hammer and hatchet handles fit securely so that the heads will not fly through the air when the tool is in use. Stand well away from anyone who is swinging an axe.

Have a place for each tool and keep each tool in its place when not in use. Many tools such as saws, rakes, hoes, and pitchforks should be securely *hung* flat against the wall.

Keep pitchforks in a rack or barrel when not in use. Never carelessly toss a fork upon a load of hay. Tragic accidents have resulted from persons sliding from the top of the haystack and striking a pitchfork which had been set against the side.

See that all wire stretchers are in good repair and well fastened to the wire before tightening a fence.

Keep all tools and equipment in good working condition. Ladders are especially hazardous if they are not in good repair.

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1 See *Hand Tools*, Safe Practices Pamphlet No. 41, National Safety Council, Chicago.

Machinery

Stay away from machinery until you are old enough to understand its correct use. Machinery is hazardous, even for grownups.

Remain *behind*. Do not step in front of farm machinery that might move forward.

Play away from machinery and out of fields where it is being used.

Avoid riding on machinery unless you are in the seat. Take care that hands, feet, and clothing do not get in pulleys, cutting knives, gear wheels, moving belts, or chains.

When operating machinery, wear clothing that will not cause you to fall or get caught in gears. Muddy boots often slip on rocks and cause accidents.

Use machinery that is in good repair. Loose belts, defective parts, and makeshift repairs often cause accidents.

Observe the instructions given by the manufacturer in the use of farm machinery.

Avoid getting between horses and the machine to which they are harnessed. Oil and repair machinery before horses are "hitched."

Avoid reaching or stepping in front of the cutting bars on grain harvesters, corn huskers, and mowing machines.

Use care in holding cranks to avoid arm injury when the motor "kicks."

Avoid running engines in closed buildings as you may be overcome with carbon monoxide gas.

Keep engines away from gasoline, explosives, or dry particles. Sparks from a running motor may cause explosions or fires.

See that moving parts of machinery are guarded in so far as possible.

In learning to drive a tractor, avoid such common errors as:

Filling the gas tank when the motor is running.
Driving when you are too tired.
Removing the radiator cap when the motor is overheated.
Cranking the engine with the machine in gear or on a hillside.
Attempting to dislodge materials from trailing machines when the tractor is in gear or in motion.
Pulling loads that might cause the front wheels to leave the ground.

Avoid accidents with electrical equipment that are caused by:

Defective installations by unskilled workers.
The use of outdoor motors on wet days.
Improper safety equipment on motors, electrical fences, etc.
Lack of regard for low power lines when moving large loads.

Animals

Approach all animals cautiously, especially those that are strange to you.

Avoid teasing or mistreating animals.

Learn the different peculiarities of farm animals.

Avoid petting animals that may be unfriendly. Take no chances with cross dogs; keep them tied.

Speak to horses and cattle before entering their stalls or approaching them closely. Gentle animals are often dangerous when frightened.

Know how to properly mount and ride a horse before riding alone.

Before mounting a horse, see that the saddle fits properly and that the girths are well fastened.

See that harness and collars fit properly and that all equipment is in good condition. Breaks in harnesses often cause runaways.

Avoid leaving a team standing untied.

Keep from disturbing animals while they are feeding and mother animals with young.

Keep male animals secured. Stay away from boars and bulls unless you have been taught how to handle them.

Treat bites, kicks, and other injuries from animals immediately, as there is always danger of infection, especially of lockjaw.

Rural Vehicles

When on rural roads, walk facing traffic, carry a light or wear a reflector or white cloth at night, and never "hop" vehicles of any kind. (See Unit I.)

Keep cattle, dogs, or other animals out of roadways and away from moving vehicles. Take special precautions in driving livestock or slow-moving vehicles on or across highways and railroads.

Use warning flags when objects protrude from wagons, trucks, or trailers.

See that trailer hitches are well chained and use warning lights for night hauling.

Avoid overloading wagons, trailers, and other farm vehicles.

Ride vehicles in a manner to avoid falling. Be sure that the vehicle can be kept under control before you get in.

Farm Buildings and Yard

Help to keep farm buildings in good repair and the farmyard free from debris.

Store inflammables away from farm buildings and never place commodities in buildings that may cause combustion.[1]

Guard farm buildings from lightning by means of lightning rods.

Be cautious in handling matches or lanterns around farm buildings. Lanterns should be kept away from straw and out of the reach of animals and small children.

Consider the distance from buildings, the direction of the wind, and the dryness of buildings and vegetation before lighting fires out of doors. It is wise to secure permission of adults before lighting fires. (See Unit II.)

Keep away from explosives and areas where blasting is being done. Explosives should not be used near buildings. Never play with blasting caps or gun shells. These explosives cause injury to about 500 children each year.

Use special caution when climbing on trees, ladders, and buildings. Avoid climbing on windmill towers, silos, and other extremely dangerous places.

Keep walks, steps, and floors in good repair and clear of substances that may cause falls.

If possible, keep close to farm buildings or other protection when the weather is extremely hot or cold. Always wear suitable clothing.

See that trap doors and openings to wells and cisterns are closed tightly.

Help to make your farm home safe. (See Unit III.)

Poisons

Never taste liquids in unlabeled bottles. All substances should be correctly labeled. When possible, use non-poisonous exterminators for rats, gophers, and vermin.

Destroy the black widow spider before it poisons you.

Treat insect bites with ammonia water or a paste of baking soda. Mosquito and chigger bites may be soothed with calamine lotion.[2]

Learn to recognize and avoid wood-ticks. They sometimes transmit dangerous diseases such as spotted fever.

Watch out for venomous snakes. Learn which snakes frequent your locality and how they may be recognized.

Learn first aid treatment for venomous bites.[3] Victims should be treated by a doctor as soon as possible.

Learn to identify and avoid such plants as poison ivy, poison sumac, and poison oak.

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1 See *Farmers' Bulletin on Spontaneous Combustion,* United States Department of Agriculture, Washington, D. C.
2 See *First Aid Textbook,* American Red Cross, Washington, D. C.
3 Loc. cit.

Never put berries or plants in your mouth unless you know that they are edible.

(See Unit III.)

Firearms

Keep away from guns until you are old enough to use one correctly.

Never point any gun at any person, even though it is unloaded or a toy.

Do not look into the muzzle of a gun. "Break" the gun when cleaning and look through the breech.

Never take a loaded gun into a house, an automobile, or a boat. "Break" the gun before carrying it on a highway or among a group of people.

Substitute target practice for hunting but never shoot in the city, on a public highway, or at night.

Carry a gun with its muzzle pointed skyward or toward the ground. Companions should keep to the rear when a gun is being held in a position for quick firing.

Never use a gun to punch or club game out of brush. See that the muzzle never becomes clogged with snow or mud.

When climbing through a fence, carefully lay the gun through first.

Use a gun with a good "safety" device. Never carry a cocked gun or jump on brush piles with a gun in your hand.

Never lean a loaded gun against a tree or fence or put it anywhere in such a position that it might fall.

Always choose hunting companions who know and practice safe hunting precautions.

(See Unit III.)

SUGGESTED METHODS AND ACTIVITIES

The following activities, along with those suggested by the pupils, should provide worth-while techniques and methods in developing this farm safety unit.

As a possible approach to this study, an excursion to a farm, a visit to some scene of farm disaster such as a burned building, or a discussion of local farm hazards may prove motivating.

Make an analysis of the farm accident problem in your local community by securing information from fatality records and from local newspaper items.

Discuss informally the causes of each accident of a rural nature and tell how it might have been avoided.

Survey a farm that you know or are able to visit and list the hazards that you see. Prepare a report on how these hazards may be removed.

Prepare posters illustrating safe farm practices.

Discuss how different animals protect themselves.

As a group project, perhaps by a "For Iowa" club, draw a plan of a well known farm in your community and mark the natural hazards.

Prepare a chart listing common farm tools and machinery. In different columns tell *who* should use the equipment, *how* it should be cared for, and *what* precautions should be taken in using it to avoid accidents.

Discuss the special dangers involved in butchering, building fence, blasting rock, breaking horses, and other hazardous farm tasks.

Write to the State Department of Agriculture, Des Moines, for complete suggestions on how to break horses and perform other hazardous farm tasks.

In cooperation with adults who live on a farm, prepare a list of safety needs for a particular rural situation.

Post on the bulletin board pictures of venomous snakes and poisonous plants. Learn to identify each.

Prepare an inspection sheet for farms. The farm checklist of the American Red Cross may be used as a guide.

Demonstrate how to give emergency treatment to various injuries that are commonly caused by farm accidents.

Study a movie on farm safety. (See bibliography.)

Prepare a list of rules to observe when using firearms.

Discuss such topics as:

Who should wire a barn?

Why should lightning rods be used?

What are the common dangers of electricity?

Design or describe a rack to hold farm tools.

Discuss methods of making the farm home safe. (See Unit III.)

Write and dramatize a play which emphasizes farm practices.

Prepare your own text to see if you know the essential rules of farm safety.

Prepare a farm accident scrapbook. Divide it into major sections such as (1) Farm Machinery, (2) Farm Tools, (3) Farm Animals, (4) Farm Fires, etc. Use illustrations, rules, and all other possible methods of showing the *correct* safeguards to be used on the farm.

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HERMAN H. HORNE